CURRENT NOTES

Your Monitor on the World of Atari

Vol. 12, No. 3

April 1992
$3.95

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TOS Extension Card
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Publisher 2 (Again)
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CN 1203

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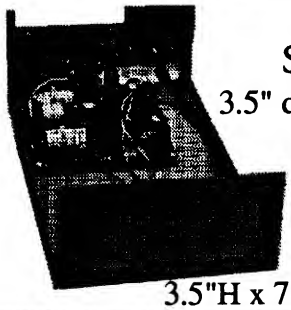

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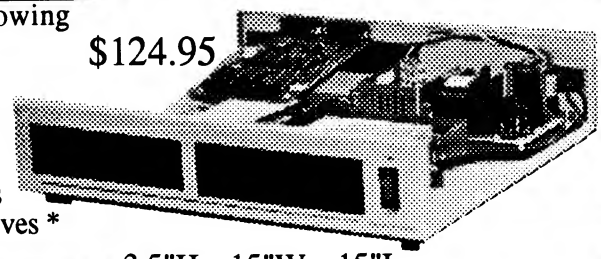

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SPECIAL REPORTS

The cover: Atari's little Portfolio is a special DOS world option that has inspired symbiosis with such products as an external 20—megabyte hard drive mated via the parallel port. Photo by Mike Heininger, (c) 1992.

VOLUME 12, NO. 3, APRIL 1992

NEWS/ANNOUNCEMENTS

MOVING?

Don't forget to send in a change of address notice if you are moving. *Current Notes* is distributed via second class US mail. The post office does not forward second class publications; they throw them away.

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PRODUCT REVIEWS

This publication is produced using an Atari Mega ST4, an Atari SM124 monochrome monitor and a Moniterm Viking monitor, a Navarone scanner, and the Atari SLM804 laser printer. Most of the output is generated with *Calamus.* Some pages, including advertisements, are produced with *PageStream* and others with *Publisher ST.*

From the Editor's Desk

by Joe Waters

A Matter of Timing

Our March issue arrived around the country, in general, about a week later than normal. We were on time, but our printer suddenly had an influx of new business and it took three weeks rather than two weeks to get the issue printed. That one-week delay also had an adverse impact on the April issue. As a result, I suspect this issue, too, will be arriving a little later than normal. It used to be that producing *Current Notes* would only take about a week (and printing it would only take a week). But that was years ago. We are much bigger now, and there are things to do in all four weeks of a month. So, any slippage in one month will have an impact on the next months' schedule. Fortunately, we still have two double-month issues, which helps get us back on schedule if things fall behind.

A Bright Spring

It is Saturday, March 21, as I write this editorial. Here it is the first day of Spring and the weather man is calling for a Winter Storm Watch! Will this winter ever end? We really haven't had a very severe winter in Washington. In fact, I think there was only one day or so when we even got any snow. But, nonetheless, everyone is ready for warmer weather, flowers, and green grass.

I think the economy is also emerging from a long, cold winter and the long anticipated economic recovery is starting to emerge. This will be good news for many companies, including those in the computer industry. Atari vendors may be serving as "leading economic indicators." I have talked to several of the mail-order businesses that advertise in *Current Notes* and all of them report strong sales right through Christmas and beyond. Atari owners are ready to add to their systems and they are doing so.

Perhaps part of this buying splurge is because of the fine array of new products that is emerging. It is not uncommon to find owners of the original 520ST who have been able to regularly expand their system as their needs warranted, and pocketbook allowed. More memory has been added as well as hard drives, floppy drives, new versions of TOS, accelerator boards, new and better emulators, fancier mice, laser printers, modems, tape backups, newer monitors, and a whole host of powerful software. The economics of the market has shifted so that, for some, it is now easier to just buy a new machine rather than try and upgrade an old one. But the possibilities of upgrading have been, and continue to be, there for Atari owners.

Not that Atari has made the job easy. They have persisted in designing a machine that, they think, is the be all and end all of computers. When an owner buys an Atari, what more could he possibly need? No need to waste money providing expansion slots. Atari owners should only buy things made by Atari! If their old machines aren't doing the job, just buy a new one from Atari Corp.

This philosophy is not, of course, unique to Atari. Most hardware vendors would love to "lock" their customer base into buying all enhancements from them. But users have always rebelled at this idea and firms that pursue this strategy are destined to fail.

Years ago, when I first got interested in a home computer, there was the Apple II and the Atari 400/800. I did some research and concluded the Atari was the more versatile (had better graphics and sound) of the two, and that is what I purchased. But the Apple II had slots. Over time, a wide variety of boards were offered for that machine and users could turn the Apple II into almost anything they wanted. And they did. And lots of Apple IIs were sold.

The IBM PC followed the same path by providing slots for boards that would enhance the functionality of the computer. Lots of boards were produced. Lots of PCs were sold. Indeed, one of the (few) major selling points of the IBM PS/2 is its modular design and construction enabling most users to, very easily, install new goodies, like extra hard drives, all by themselves.

There are signs that Atari is moving (or being pushed?) closer to industry standards. Although the design of the Mega STe and the TT still does not leave much room for expansion, perhaps we will even see an improvement in this area with the next generation of computers from Atari.

I think Atari's winter is also nearing an end. They have weathered some difficult times. If the new products currently under development continue Jack's earlier promise of "power without the price," Atari may yet be in there for the long haul. As Spring flowers begin to poke their heads through the soil, we will be eagerly awaiting Atari's emergence into the computing wars of the '90s.

■■■■■■■

With great regret, I am sorry to say that, after an extended illness, Anne Sommers, wife of CN's ST editor, Frank Sommers, died on 20 March 1992.

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Letters to the Editor

A Bright Atari Future

Hey guys! Why so depressing?

I've read the January/February issue of *Current Notes* cover to cover (as usual). The Junkyard Pussycat likened our beloved Atari computers to the Studebaker, while Bill Yerger continued the theme in "Why Atari?" pointing out all the flaws and mistakes made by management in Sunnyvale.

Personally, I feel there is lots to look forward to from Atari. The picture is brighter now than it's been for a few years: Atari made a profit in 1991 ... new products *are* being released ... the ST seems to be securing a niche in MIDI and desktop publishing ... General Electric is going to service hardware for us (important for business acceptance) ... TOS 2.06 is out ... and developers like CodeHead, Gribnif, ISD and SoftLogik are maturing and setting impressive standards of excellence.

The new Atari hardware is still high quality, faster, and more versatile than much of the competition. Even power-DOS users *wow* at my ST desktop publishing power, and GEM still runs circles around WINDOWS.

I suppose it must be hard to stay upbeat in every issue. But keep the faith! We've chosen a fine platform and joined an enthusiastic community of users. Let's celebrate the things that make us distinct and the fact that we dare to be different.

Yours truly,
Ernest Higginson
Martintown, Ontario
ST-user since 1986

[After every night, there is a day. This recession will end and the economy, and the computer industry, will pick up. Already, Atari dealers that we talk to, at least the mail-order companies, are reporting continued brisk sales. And if rumors of the new Atari computers prove to be true, the roller-coaster ride that Atari, and Atari owners, have been on will start another upward climb.–JW]

Fencepost Answer

Dear Dave Small,

Regards *Current Notes* "Heresy, Part 1," Small World, p. 36 Jan/Feb '92 Fencepost error.

The correct answer of 37 is for a fence to divide an 80 foot square into 4 40 foot squares. The formula is N for number, D for distance, S for space. This is very similar to the electricians' nightmare of equally spacing 4 lights on a 10 foot wall. The formula is:

S = D / (N+1).

10 divided by (4+1) = 2.

2 foot spaces * 5 spaces = ten feet. In your case it is N that is the unknown so the formula gets updated to:

N – 1 = D / S * sides + Ends.

We have to add for the corners. In your case, we have:

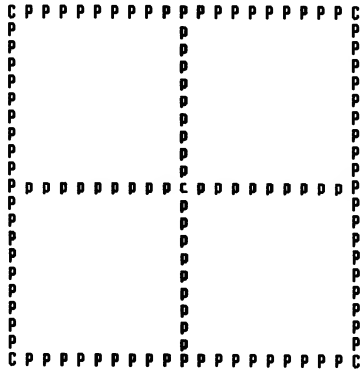
D / S = (10–1) + 4

Ends or Corners = 40.

However, if we are dividing a field into four equal smaller fields we still have

N – 1 = 40/4 + 1

for the Center or Corner. In each case it is 9 per side+corners. 9*4=36+4 for your case = 40. 9+4=36+1=37. Everything remains orthogonally correct. If we are making something new it is N+1. If we are making something broken up, it is N–1. I believe this is an old Merlin the magician exercise from *Creative Computing* and probably a long time before that in a number of other magazines. I am quite certain that it is probably the editors who did not understand what you were saying and so rewrote your article and edited out what would have made it correct. I have had this problem many times, sometimes it



is so complete; the editing job they do; that even my original gets changed. Your point even more verbalized here remains the same–it is always different by one or more from what you think.

I thoroughly enjoyed your article and, although I remain an 8-bit enthusiast, I do think that, without you, Atari would have folded before they had an ST. I had an ST once, but I found it too difficult to program, so I do admire your accomplishments and efforts.

Sincerely,
H. Jake Olbrich
Cherry Valley, IL

Rebel Without a Cause

Dear Sir:

I have been an enthusiastic reader and supporter of *Current Notes* for many years, and appreciate the many informative articles you regularly offer. However, I feel I must comment about a very disturbing article in your latest publication.

The article by Mr. David M. Small in your January/February issue is not just "Heresy," as the title states, but is grossly inaccurate. The concept that seat-of-your-pants spaghetti code is somehow better than structured programming is not only ludicrous, but also a dangerous one to present to budding programmers.

After spending 25 years as a programmer and systems analyst with a large computer manufacturer, I have had the opportunity not just to develop new code, but to maintain (and often rewrite) code of greatly varying complexity and quality. The main problems with spaghetti code are that it takes much longer to initially develop an application than structured code, it is *very* difficult to maintain, and adding enhancements often introduces new problems. These facts have been proven and documented many times over. The only problem with structured code is that it requires discipline, and the commitment to take the time to learn that discipline. The rewards are well worth the initial investment. Try giving a spec to two comparable, competent programmers to develop, one a proponent of structured code, and the other a spaghetti programmer. The structured code will be completed *and tested* in less time. But more importantly, now present them with a

significant modification to implement. A *new* programmer can complete (fully tested) the changes more quickly on the structured code than the author can on his own spaghetti code.

I am currently spending full time operating a national fantasy sports service, using two Atari computers and two IBM compatible computers (for voice mail). I have personally developed all of the support software. Due to the nature of this business (*many* rules change from season to season), modifications are constantly being made to the software. Due to the structured nature of the code, major rules change implementations take a matter of days.

In the three year life of my business, regression testing of a change has never revealed a problem in another functional area because of the modular nature of the code. A side advantage of this is that *many* of the subroutines from this system have been used with *no* change in other programs.

By the end of this year, my IBM voice mail system will be communicating directly with my Atari league support system, so that customers can directly access and update the league database through simple keypresses on their touch-tone phones. There is no way this system could be implemented and thoroughly tested in time if not for the use of structured programming and stepwise refinement of functions.

One reason this article hit a nerve for me was a recent experience. My niece was visiting, and played David Addison's *Monopoly* game. She liked the game, but would have liked to play against another human opponent. I decided to upgrade the software before her next visit, expecting to spend 3-4 hours making some simple changes to add human players and give control over which properties are mortgaged and unmortgaged. To my surprise, this cute program with its catchy graphics is a bucket of worms under the covers. The changes are almost complete now, but the maze of GOTO's , multi-use data fields, and multi-entrant/exit routines have caused me to spend over 50 hours on them. Every change to existing code affects several other functions. Looking back, I could have grabbed the existing graphics and rewritten the code completely in less time.

What a shame that talented programmers such as Mr. Small and Mr. Addison have not made the commitment to develop the disciplines required to improve their productivity and the quality of their code. We could have the advantage of so much more product from them. But more than that, please, Mr. Editor, do not use your publication to encourage young talents to take this attitude. If Mr. Small is determined to rebel, there are many worthwhile causes. Unfortunately, his current stance makes it obvious that he is a "rebel without a cause."

Sincerely,
John E. Shaffer
Hartselle, AL

Quicken 5/AT-Speed Problems

Dear Frank:

I have been an STe owner for two years. I enjoy the power and ease with which the ST allows access to programs through the window/mouse environment. I am, however, a constant user of a PC system in my daily work. When Talon Technology made AT-Speed available in North America I had the system installed at my local Atari outlet. I am able to do a lot of computer work from home, which saves me a great deal of time. For my personal use, I purchased *Quicken 3* (*Quicken* is one of the finest financial programs on the market today), later upgraded to *Quicken 4*, then this fall, when *Quicken 5* was released, I upgraded again only to find that it does not work with AT-Speed; it simply hangs-up at the point of installation.

I have made four calls to the Quicken technical staff and two calls to the At-Speed technician; no one has been able to help me. Have you or any of your readers run into this problem and if so what is the solution, if any? If there is no solution to this problem, your readers should take note of my letter and stay away from *Quicken 5* (all previous versions of *Quicken* work very well).

Dane Watson,
London, Ontario

[I have not run into the problem, but maybe one of our readers has and will be kind enough to send in a solution.-JW]

ST/Mega Graphics Cards

Dear Joe,

I'd sure like to see a really educational article on high-res color graphics cards (boards) for the ST, Mega, etc. This is a very fuzzy, confusing product area. Lots of boards are being announced, but no critical reviews and no info on their hardware requirements and compatibilities-nor their software compatibilities. Most of them appear to be ridiculously overpriced.

From what I hear, George Richardson's forthcoming (hopefully) Chromax board will be compatible with Gadgets by Small's SST board-and reasonably priced (hopefully)-and will provide 1024 x 768 resolution with a bountiful color palette.

Thanks for a useful Atari magazine.

Sincerely,
Don Wilhelm

[What about it folks? Has anyone had some experience with these powerful graphics cards that they would like to share with the rest of us?-JW]

ST Beats the Competition

Dear Joe,

It's always a pleasure getting the new issue of *Current Notes*. You have accumulated a fine mix of columnists and offer as good a coverage of the field as can be asked for. The color covers that *CN* has begun using are nice, too, and I'm glad that you have chosen to use photographs of real objects for your covers instead of, say, monitor displays of color graphics. However good a color graphic may look on the screen, once printed to paper, the human eye can't help but notice how coarse grained it is. The photographs you have been running, like "Atari Still Life" on the February cover are much more pleasing. I just hope that the added cost of running these color covers isn't eating into CN's profitability. CN is not, after all, a newsstand magazine. It does not have to reach out and grab customers as they walk by because the purchasers of *CN* are already Atarians looking for Atari specific magazines. I would think most of your readers would be just as happy with the older 2-color covers if that's what it would take to keep *CN* profitable.

In the last couple months I've had more experience using different computers than I've ever had before. And it's enough to make me love my 1040ST even more. I've been rotated into a new group in the lab where I work. The work here involves instrument analysis using a machine driven by an IBM XT PC from circa 1987 but also data entry into a spreadsheet program that was written in the '60s but currently emulated on a 386. There's also a Burroughs network which I've worked with before—it's OK but I rather hope that most networked computer systems run faster and have less trouble sending files to the printer. The XT driven analyzer is a hoot. It's a menu driven program, which is not a problem, outside of the fact you have to sometimes go through three menus to do a single function. The pain is that after most menu selections the computer has to stop for 10 seconds or so to read new data from the hard drive before giving you the next menu. You could get old just waiting for the machine to catch up with you.

At first I thought I was working with a 64K machine because it had to reference the hard drive so often but it turns out to be a 640K machine. You'd think with that much RAM it could at least keep the entire menu tree in RAM and load up the appropriate modules only after a specific action has been selected.

But this is nothing compared to the 60s spreadsheet that we're still using to report critical data every month. The program doesn't use a mouse, doesn't even allow the use of arrow keys. In fact, you have to type one value to move down a row and another to move into the row. And you've got to remember to never type faster than the program can read keystrokes or you'll scramble the data ... Even the Portfolio, upon which I'm writing this letter, has a better functioning spreadsheet than that! And compared to the ease of reaching even the deepest menu in *Pagestream*—and getting back to the main screen—there is no comparison to that XT program I have to use at work.

I was also impressed by the implementation of *Pagestream* on the Atari over the Amiga. At a recent SF convention I volunteered to demonstrate *Pagestream* to would—be amateur publishers. Since they only had Amiga computers I got more than I bargained for of the notorious "Amiga flicker," which I had always assumed was something subtle but annoying. It turns out to be something grossly visible and very annoying!

Pagestream on the Amiga uses the same layout and commands. The Amiga's pull-down style menus were difficult, at first, to get used to, but the noticeable difference occurred whenever I went over to the toolbox to change tools. On the Atari, when you click on a new icon, it reverses color and that's that. On the Amiga, when you click on an icon, there's a discrete pause and a flicker on the screen as if you have changed windows (which I suppose you have, on either machine) before the cursor picks up the new tool. Atari may not be able to do multitasking like the Amiga, but its response time in *Pagestream* is a heck of a lot better.

The departure of Atari President Greg Pratt from the company for a non-President position coming just a month after Atari's decision to shelf the STylus does not bode well for the future of the company. Indeed, a number of your columnists seemed subdued this time around.

It might seem strange to link the STylus with Pratt's departure but on a symbolic level they are related. The word on the Stylus, coming from Atari mouthpieces, was that this had the best handwriting recognition software, which ran under TOS instead of some unique, proprietary OS—meaning that the handwriting recognition software could interact with existing ST software instead of having to wait for it to be written. By all accounts it looked as if, for the first time in years, Atari would have the best machine on the market. Then, suddenly, they announced that market research indicated that there was no market for a hand—recognition computer.

What they were really saying was that the market for handwriting computers was unformed and it would require aggressive marketing to develop those markets and until that time Atari could not expect to see any profits from the Stylus. Cancelling the STylus in effect said that Atari hasn't the marketing manpower to make the STylus work and equally, doesn't have the money or the time to wait for their investment and marketing to turn a profit. The company is not literally bankrupt, but too poor to any longer compete in the marketplace. Pratt's departure says as much, too. I would not be surprised—though heartily saddened—to see, in the next two years, Atari either going out of business completely or drastically restructuring its operations. I might presume they would sell off their computer operations to some distributor and concentrate solely on their Lynx and Panther game systems (although even here their price advantage over Sega and Nintendo hasn't benefitted them because of the slow and limited production of games).

What Atari needs, besides some direction at the top levels, is an investor with about $50 million—$10 million for an immediate TV blitz like Commodore had for the Amiga with another $10 million for a continuing low level advertising and the rest to bolster their development department so they can get their products designed right the first time and out the door on time, and perhaps with a little money to bribe a 5.1 version of *Word Perfect* and an import of *Lotus* and *dBase* to the ST world so that business people won't have to look for something "just as good as ..." but can find the tools they need and know already here.

I really appreciated David Troy's explanation of High—Density floppy drives and why there have been problems bringing them to the ST world.

I've not actually seen the Hewlett-Packard palmtop computer Andrzej Wrotniak talks about but I have my doubts about it when he notes that the Portfolio has larger keys and a better feel to the keyboard. Usually the complaint is that the Portfolio's keyboard is too small and has a stiff calculator like feel to it. To say that the H-P is worse is saying a lot.

I look forward to David Small's columns in *Current Notes* and this months' was no exception, though his subject does leave me a tad nonplus. The last experience I've had with programming was a month of Fortran 20 years ago. I don't think either Pascal or C had yet been developed, so the heresies David threatens to reveal to us are more than a little obscure.

But I resemble–er, take poorly, his remark about all the programmers who look (and smell ...) so much alike. They may well look like clones but it's unfair to call them conforming non-conformists. Non-conformists are people using dress to make a public statement. They are quite conscious of what they're doing, even when they do end up dressing alike. But those computer programmers David is having so much fun with aren't political. They aren't "non-conforming" to make a point. They dress that way because they are unconscious of how society expects them to dress. And if they all dress alike it's because jeans and a t-shirt are comfortable and adequate for most occasions. And maybe David should ask himself how many programmers he doesn't see because they don't "dress like programmers?"

I just think that for a man who has taken so many personality profile tests David isn't being very sensitive here about people who are different from him.

By the way, where did you get that font used for the titles and sub-heads in David's column? And what's it called. It looks like a nice font to have around.

Regards,
Brian Earl Brown
Detroit

[Thanks, once more, for a thoughtful and interesting letter. By the way, *Current Notes* is, indeed, sold on newstands, although we limit our "newstand" distribution to Atari dealers. Unfortunately, store sales have not increased since we went to a full color cover. But it would be very difficult to go back to our older covers. We will have to absorb the cost and hope we get more subscribers.

The font is called CRAZY. It is designed for ransom notes. It is available on GEnie (and the CN DTP cartridge) and we will, eventually, add it to the CN library. –JW]

Bell the Cat!

Dear Mr. Barnes,

I have been a new subscriber to *Current Notes* for the last six months and I have noticed, with much annoyance, that you are nothing more than a professional Bitch. I believe that it's time for you and the Atari community to come to a parting of the ways. You are obviously very unhappy running Atari equipment. You are upset with every single thing that makes up the Atari product line. You criticize the operating system for not being updated. Then you criticize the company for charging for the new operating system when it is developed.

Enclosed you will find one dollar that I am contributing to what I hope Mr. Sommers will start as the *get John Barnes off the Atari platform* drive. I feel that you must have some deep need to finally join the mainstream. So do it. I hope that once you do join the Bill Gates mistake of the month club, you will be much happier. I know I will, as long as I don't have to read your idiotic diatribe against Atari and its patrons.

Wishing you the best of luck in you future pursuits.

Michael James Dever
Philadelphia, PA

Dear Mr. Dever;

It is too bad that you do not enjoy the Junkyard Pussycat's efforts to find the grey cloud that surrounds every silver lining. You are always welcome to skip right over those pages in your reading of *Current Notes*.

The Pussycat comes by his calling honestly. The role of curmudgeon is well established in American letters through names like Ambrose Bierce and H. L. Mencken. While the Junkyard Pussycat's poor skills do not let him aspire to the lasting fame of those writers, he does make an effort to take the side of the Atari consumer on a wide range of issues.

Your dollar is being held in escrow until we find some worthy cause to donate it to.

Best Wishes
John D. Barnes
Junkyard Pussycat

P.S. I can be reached at:
Current Notes
Genie: J.D.Barnes
Compuserve: 73030,2307
Delphi: JDBARNES
Internet: Johnbarnes@enh.nist.gov

An Answer Man

Hi, Joe,

Yes, I want to continue my subscription to *Current Notes*. I have enjoyed every issue, and look forward to many more.

I have a couple of suggestions, and they're free. Here goes:

How about a technical answer column. A reader sends in a question, you refer it to an expert, and then print the question and answer.

How about a special report each month for Spectre users. Spectre is the main reason I still have my ST.

But I do enjoy CN, and look forward to many more good articles.

Sincerely,
John Martin

[We do, indeed, have a technical answer column. It is written by Dave Troy and called "Myths and Mysteries." Dave has volunteered to answer anyone's questions and reprint the question and answer in his column. He just isn't getting that many questions. So, anyone who wants any particular "mystery" unveiled, just contact Dave. He gives many addresses at the end of his column.

We did have a Spectre column and would like to start it again. But we need a columnist. Anyone out there interested? –JW]

Atari CD-ROM

Dear CN,

Please have someone do an article on getting up and running with CD–ROM, before I'm forced to an IBM clone just for the CD–ROM!!!

Gene O'Neil
Eugene, OR

[As you may recall from my March editorial, I already bought the IBM clone for CD–ROM. However, if any readers have an Atari CD–ROM and would like to tell us about it, please do. –JW]

Send your LETTERS TO THE EDITOR to:
Current Notes
122 N. Johnson Rd
Sterling, VA 22170
Or, you may want to FAX your letter: 703–450–4761.

GOOD NEWS AND BAD NEWS

Atari Industry News and Announcements

Atari Postpones BCS Unveiling

Atari has contacted the BCS and asked for a later date to appear to debut the latest products. Atari intention is to have product available for sale shortly after the BCS event. Sources at Atari stated, "In the past we have been guilty of showing vaporware. The rescheduling of this event reflects our new commitment to only show new products when they are close to production." This also probably signals a dramatically reduced appearance of the new products at CeBit in March. Instead of the major roll-out that was predicted, look for Atari to be showing the new machine privately to significant dealers and developers. No new dates for the Boston event have been scheduled although Atari and BCS are conferring. (ZNET-09)

Atari Mags Around the World

Atari France, UK and Italy are now publishing periodicals aimed at distributors and customers. These are slick, glossy full color issues running up to 100 pages. Contents include news about Atari developments in software and hardware, music applications and video games. *Atari New* has a circulation of 18 thousand, and is published by Atari Italy every two months using *Calamus*. In England, *Atari Reports* has been sent to 4,000 independent dealers. *Atari Magazine* is published in French and circulated in France, Belgium, Switzerland and French Canada. (ZNET-09)

Two Cornell Students Charged in Virus Attacks

Two Cornell University students, David S. Blumenthal and Mark Andrew Pilgrim, have been accused of planting a virus that locked up Apple Macintosh computers at Cornell, at Stanford University in California, and in Japan.

Both students were charged in Ithaca City Court with one count each of second-degree computer tampering, a Class A misdemeanor. According to a spokesperson, the investigation is continuing and additional charges are likely to be laid.

The MBDFA virus apparently was launched Feb. 14 in three Mac computer games—*Obnoxious Tetris, Tetriscycle*, and *Ten Tile Puzzle*. MBDFA is a worm, a type of computer virus that distributes itself in multiple copies within a system or into connected systems. MBDFA modifies systems software and applications programs and sometimes results in computer crashes. (STR-09)

TEC Sales Are Brisk

From the reports from a few dealers around the country, the TEC cards offered by Codehead Technology are selling quite well. In fact, most are set to re-order and are very pleased with the public's reception of both the cards and TOS 2.06. (STR-09)

Center-Fold Ad by Atari Appears

LA Computing Magazine, with 1,500,000 subscribers contains a center dual page full color advertisement by Atari Corporation. The ad offers a Desktop Publishing bundle for $2,999.00 which contains the following: MegaST2 with 50 Meg hard disk, SM147Monitor, SLM605 Laser Printer, Migraph Hand Scanner, and choice of PageStream or Calamus. Along with the full screen shots of Atari software, there is a full listing of dealers from across the country participating in this special offer. They are:

B&C Computer Vision (408) 986-9960	California
Butler Computer (206) 941-9096	Washington
Caves Creek Computer (206) 783-0933	Washington
CompuSeller West (708) 513-5220	Illionis
Computer Center of Davie (305) 583-6028	Florida
Computers Etc. (203) 336-3100	Connecticut
Computer Rock (415) 751-8573	California
Computer Studio (704) 251-0201	North Carolina
Digital Imagining Systems (305) 756-0446	Florida
Computer Warehouse (916) 971-9812	California
IB Computers (503) 485-1424	Oklahoma
IB Computers (503) 297-8425	Oklahoma
Jenkins Computer (800) 880-6938	Texas
Manny's Computer (212) 819-0576	New York City
Mid-Cities Comp/Soft (803) 788-5165	South Carolina
Music Arts (305) 581-2203	Florida
Run PC (303) 493-5565	Colorado
San Jose Computer (408) 995-5080	California
Team Computers (313) 445-2983	Michigan
Toad Computers (410) 544-6943	Maryland
Winner Circle Systems (510) 845-4814	California

(ZNET-10)

ICD Launches Roundtable on GEnie

ICD is now taking another step forward in providing technical support to its many customers by opening a product support RoundTable on GEnie. The ICD RoundTable will be hosted by Douglas N. Wheeler. Several other ICD employees will also frequent the RoundTable sharing their own expertise. The ICD RoundTable can be found at page 1220 or accessed with the keyword ICD from any GEnie page prompt. (ZNET-10)

Blue Ridge AtariFest Announced

The Blue Ridge Atari Computer Enthusiasts (BRACE) and its sponsor, Sheldon Winick & Computer STudio, recently announced the 3rd Annual BLUE RIDGE AtariFest to be held in Asheville, N.C. on **Saturday, July 18, 1992**. After last year's terrific festival, there is no doubt attendance will be high. (STR-10)

Listening Carefully

The (Sparrow & Falcon) (68030–68040) are rumored to be announced sometime in the second quarter. Atari Corp is very tight lipped when asked about performance stats, but the word is these machines are hot! In fact, most "learned ears" say they will sport true SCSI ports and not ASCSI ports. Hopefully, the new products will be ready to ship soon after their initial showing. Rumor also has it that a few Books have already been, or are about to be, shipped. Good news sure feels nice. In addition, the ABC line of clones are being given serious attention and could possibly be enhanced and priced competitively. 1040STe units seem to be in very short supply, while the MSTe units are doing very well. (STR–10)

No Falcon for the STe or TT

Atari armchair pilots will be disappointed with the following announcement from Holobyte posted on the GEnie ST Roundtable (Cat. 9, Topic 34, Msg. 115):

Unfortunately, none of our products (including *Falcon*, the *Falcon Mission Disks* or FOTI) is compatible with the newer TOS versions in the Mega STe and TT. Based on sales of Atari ST products in the last two years, there just isn't enough financial incentive for our developer to fix this compatibility problem, alas.

CeBIT Report

(The following report, by F. BELLI [Frank @ Home], appeared on GEnie (Category 14, Topic 33, Message 1 on Friday, March 13, 1992. It was reprinted in both ZNET and STReport.]

I can't believe it. Rumors flying around like mad. Everybody and his mother–in–law have their own opinion as to what Falcon is or should be or whatever. But when it is announced, nobody says anything. Not even Atari.

Anyway, although I wasn't at the CeBit I do have some first, second, and third hand information.

First of all, the machine was only shown to a closed group of people, mostly dealers. It wasn't shown on the floor of CeBit.

- The Falcon 030 is considered a follow–up machine to the 1040s, it's contained in a 1040 case (or at least very similar), and black ala NeXT.
- 68030 CPU running at 33Mhz, I believe the whole machine runs at 33 Mhz or at least most of it.
- DSP 56001 Signal processor (NeXT).
- Up to 14MB RAM in simms.
- Screen sizes, all ST/STe/TT resolutions except 1280*960, plus 640x480x65535 (out of 256,000 colors), plus some other stuff which I forgot (ah, ability to connect to external signal source).
- Built–in 2.5" SCSI hard disk (this may still be a rumor).
- All normal MegaSTe/TT connectors, ST and STe joy stick ports (4 in all), plus a built–in LAN connector and other toys (remember that signal processor).
- Multi TOS, yeah, real live Multi TOS, NOW! Thanks guys. Multi TOS alone is worth dumping my expanded MegaST for a Falcon.
- Delivery before September (this year).
- I heard the Falcon should cost less than $1,200.00, but with exchange rates the way they are and my bad ears, I may have heard the wrong price.

Anyway, it's plain to see that Atari has a new, and wants a new, 'low end' machine (or a super game machine–the choice is up to you) which isn't designed to replace the MegaTT, but designed for the masses and which can be sold to the masses.

Rumor has it that the Falcon 040, the 'high end' machine, is almost ready. It didn't make it to CeBit by just a few days, and will be announced in September. Atari didn't say one word about the '040'–the rumor came from other sources.

Great going Atari, meaning everybody who worked on getting the Falcon out. I wish you my best.

Now let's hear from Bob and John and...

Frank Bell

(Note: ZNet's editors spoke with Atari on the above information and Atari would neither confirm nor deny any of it.)

PRESS RELEASES

Dragon Battery Kit

DragonWare Software Inc announces the long awaited Stacy Internal battery! This two part upgrade for the stacy is 2.2 pounds! The "Dragon Battery kit" will include a dealer installed cable and jack and one 2.2 amphour battery.

On a stock Stacy, this will give over two hours of use on one charge. The kit also includes a fast charge option that will charge the battery in about two to three and a half hours while you use the computer or sit it on a shelf.

If you use the standard Stacy power jack, the battery will be kept at top charge at all times after an initial 14-hour slow charge or a quick charge! The Dragon Battery Kit will have an SRP of $94.95. The Dragon Battery alone will have an SRP of $74.95.

The G_Man

Also available from Dragon Software is *The G_Man*, an easy to use utility with five functions designed to help end your GDOS woes. *The G_Man* will automatically make ASSIGN.SYS files, rename up to 200 fonts at one time, check font integrity with 3 powerful tests, and create screen font only ASSIGN.SYS files. No text editors are needed to make ASSIGN.SYS and the program includes tutorial and help menus! A must for Desktop publishing on the ST/TT. *The G_Man* is available for $24.95

For more information on *The G_Man* or the Dragon Battery kit for the Atari Stacy write: DragonWare Software Inc., P.O. Box 1719, Havre MT 59501-1719. (406)265-9609.

Kidpublisher Professional Updated

Kidpublisher Professional is a desktop publishing program for children ages 5-11. Most children use the program to write and illustrate stories and reports, but it can be used to print any kind of document requiring both text and graphics (posters, personal letters, etc.). It includes a WYSIWYG word

processor and drawing screen. Printouts have a picture on the top half of the page with 7 lines (32 columns) of text at the bottom. Four font styles are built into the program, and a teacher or parent may design an additional font using any DEGAS-compatible drawing program.

Kidpublisher Professional now contains a built-in coded font set. The child types a message in a normal font and then can convert the text to code by simply selecting the coded font set from the FONT dialogue. A decoder card is included in the package. The code used is self-decoding: a child who receives a message written in the coded font set can type that message into his own computer and then load the coded font set to read the deciphered message as well! Kids really enjoy this feature.

Children who use both our *Kidpainter* and *Kidpublisher Professional* have asked us time and time again to add the MIRROR option to *Kidpublisher*, so we have. The drawing portion of the program will now automatically create mirror-images (horizontal, vertical, or both) as the child draws with the Freehand, Line, Box, and Circle drawing tools.

The package contains a red disk, a 28-page parent/teacher manual, a one -sheet children's manual, extra labels, and a decoder card. These enhancements make *Kidpublisher Professional* more powerful and more stimulating than ever before. Registered users may upgrade their copies for just US $5 (plus $1 shipping). The list price for the new version is US $40. We do accept MasterCard and VISA; please include your expiration date. Personal checks in US$ should include $3 for postage.

Multiplay – Math Exploration, Discovery and Practice

Multiplay is designed to help children, ages 5-11, commit basic addition and multiplication equations to memory and to offer opportunities for the discovery of math patterns. Among the multitude of basic math drill programs, *Multiplay* is unique in the freedom of choice extended to both the child users and their parents or teachers, in its open-ended, and in the opportunity for creative thinking and expression.

The program consists of a Main Screen and three play screens: the Pattern Screen, the Puzzle Screen, and the Make Puzzle Screen. Each screen's primary component is a grid. The x and y axes form the elements in an equation and the grid square at which they converge is the solution to the problem, the "answer square." The parent or teacher can choose whether the grid deals with the elements 0-9, 0-19, or 0-29 (limited to 0-19 on a 520ST). There is also a choice of whether the program will offer multiplication or addition or both.

Multiplay, like all commercial kidprgs, is accompanied by an installation program which allows the parent or teacher to configure the child's disk to suit his/her needs and interests. The adult can pick and choose the options which will be available to the child and rerun the installation program to add options as the child's skills increase. This grow-as-you-grow approach allows *Multiplay* to appeal to children throughout a wide age range. In fact, *Multiplay* appeals to beginners and math wizards alike!

The *Multiplay* package contains two green single-sided disks, a 28-page manual, a one-sheet children's manual, and extra labels for your child's copies. The recommended retail price is US $40. We do accept MasterCard and VISA; please include your expiration date. Personal checks in US$ should include $3 for postage.

Order *KidPublisher Professional* or *Multiplay* from D.A. Brumleve, P.O. Box 4195, Urbana, IL 61801-8820 USA. Voice: (217) 337-1937, Fax: (217) 367-9084, GEnie: D.A.BRUMLEVE, CIS: 71451,1141, Delphi: DABRUMLEVE.

Easy Text Plus–Budget Desktop Publishing Program

It's easy to get swept away just by looking at $300 desktop publishing programs with features like auto-kerning and vertical justification. However, there are a lot of people who don't need that much sophistication and don't have the money to spend. Enter *Easy Text Plus*, a new entry-level desktop publishing program for the rest of us. At just $69.95, *Easy Text Plus* is a no-frills desktop publisher that still offers good quality output on 9 pin, 24 pin, and laser printers (including the Atari SLM804 and HP Laserjets).

Easy Text Plus comes on two DS disks (SS version available) and will work with all configurations of Atari ST's right down to a color 520 ST with 1/2 meg. Clip Art and text (ASCII and *First Word*) can be imported. A complete 88-page printed manual is included. *Easy Text Plus* is completely GEM based utilizing the menu bar, dialogue boxes, and a host of GEM functions.

Features include justified text, word wrap, 36 different graphic fill patterns, clip art can be clipped to size, and keyboard equivalent commands. *Easy Text Plus* is available at finer Atari dealers across the North American continent; drop by your local dealer for a demo. Or download a functional demo of your local BBS or online network (GEnie, Compuserve, etc.)

When ordering, specify printer type: HP Deskjet/Laserjet, Bubblejet, NEC P6, Atari SLM804 Laser, Atari SMM804 Dot Matrix, Epson Compatible 9-pin Dot Matrix, Epson Compatible 24-pin DotMatrix. Disks are double-sided (add $5 for single-sided disks). Add $4 for shipping/handling. (See PDC ordering info below.)

Xtra-RAM Deluxe Price Reduction

PDC has reduced the price of the very popular Xtra-RAM Deluxe upgrade board which uses SIMM chips to upgrade your ST up to 4 megabytes! Due to price reductions on components and a larger purchase we are able to offer the board for just $99.95; that's a $40 savings! And even though UPS and the post office have increased their rates, we have been able to maintain the same $6 shipping cost. The money back guarantee is still in effect so if you're planning on upgrading, don't wait, order the Xtra-RAM Deluxe today!

Order Easy Text Plus or Xtra RAM Deluxe from PDC, 4320-196th SW Ste. B-140, Lynnwood, WA 98036. Questions/Visa-MasterCard Orders: (206) 745-5980. FAX: (206) 347-8766. GEnie: PDC.SW, CompuServe: 72567,302

Sudden View in Final Release

According to Rod Coleman of Sudden Incorporated, the final release of *Sudden View* has just been shipped to dealers. After several months in Beta test, 126 changes and enhancements have been made to produce the final version for the Atari ST. It now supports Moniterm and TT high resolutions, as well as 8 x 8 font on monochrome monitors.

Sudden View is remarkable for its fresh approach to editing fundamentals. It uses something called Virtual Control, which allows the user to have the feeling of virtually touching his text as he edits and arranges it.

Sudden View's most obvious feature is its ability to dynamically scroll text and move text blocks. These functions occur in real time and in direct response to the user's movements. The program responds quickly enough to move the text as the user moves his hand.

Even though *Sudden View* only edits ASCII files, they are internally indexed so that the user can display any part of the file instantly. This is true whether the file is two Kbytes or two megabytes long. Another difference is that *Sudden View* has no "Insert" or "Replace" modes. Editing action is cursor-position dependent, allowing the user to just place the cursor and type. If the cursor is over a space to the left of any text, it will insert; otherwise it will replace.

Sudden View's copy, cut, paste, and move features are its real strengths. It defines four different types of text blocks (Character, Sentence, Field, and Line), which can be selected and manipulated without using any menus. The user can drag a Sentence through a paragraph as it dynamically re-formats in real time. A group of Fields or a column can be deleted, replicated or moved as the user directs. The text becomes an extension of the user's thoughts; control is virtual.

Since *Sudden View* presents a significant number of new concepts, a Student version is available at $24.95 suggested retail. It has all of the standard features and complete one-hundred page manual as well as occasional study breaks for learning the program.

The Master version has several extra features for the advanced user but no study breaks. Owners of the Student version can upgrade to the Master version for $40.00, or both versions can be purchased initially for a suggested retail of $64.95. *Sudden View* files are not copy protected.

The Student version is available from Atari ST dealers now. Either version can also be ordered directly from Sudden. For more information, contact Rod Coleman, Sudden Incorporated, 5081 South McCarran Blvd., Reno, Nevada, 89502, or call 800-421-4228 (orders) or 702-827-2996 (questions).

I-KOEN Design Guide to Pagestream 2

The **I-Koen Design Guide to PageStream 2** is the complete reference guide for *PageStream* publishing. The **Guide** has reference charts for fill styles, halftone screens, line styles and object effects at 300 and 1200 dpi. It includes samples of PageStream fonts and standard PostScript fonts. Character set comparison charts for Soft-Logik, PostScript and Compugraphic fonts show you which characters are available in each type of font. Keyboard reference charts for Dingbats and Symbol fonts make selecting symbols easy. There are also text size, style, tracking, leading, reverse type and baseline shift samples. The **I-Koen Design Guide** also includes a reference to writing macros and lists keyboard equivalents.

The **I-Koen Design Guide to PageStream** is printed on durable stock in a 20 page letter-sized booklet. USA: $6.95 US; Canada: $7.95 Cnd (includes GST) International: $8.95 US (sorry, no checks for international orders)

I-Koen Design, P.O. Box 107, Lazo, B.C., V0R 2K0, Canada. Pay by check, money order or Visa. Sorry, MC, Amex and Discover are not accepted at this time. Please include the following information: Name (if VISA, include name on card), Billing/Mailing Address, Visa # (if applicable), Expire Date, and Signature for Visa orders.

Flash II Debuts at ACE '92

Missionware Software is proud to announce the introduction of *Flash II*. Here's a list of just a few of the new features to be found in Flash II:

* DO scripts are no longer needed for automating your logos process. All board parameters are now set via dialogues. These parameters are saved in the board configuration file and automatically configure Flash II when the board is activated.
* Now permits the use of up to 30 function key macros. 10 macros are considered global. The other 20 macros can be programmed separately for each board and are automatically loaded when the board is activated.
* Flash II can be used to display, either on- or off-line RLE and GIF pictures.
* Includes a new Review Mode. Save your online session to disk and later review it as if you were online!
* Supports the following terminal emulations: TTY, VIDTEX, VT52, ANSI, VT100, VT101, VT102, VT200, VT300 & Prestel.
* Supports ST, IBM and DEC characters sets.
* Flash II is designed to work on any ST or TT, in any resolution, from 80 to 132 columns, and 24, 29 or 48 lines.
* A new type-ahead buffer supports up to three lines of text, which are fully editable using the cursor, delete and backspace keys.
* You can configure the amount of memory you wish Flash II to grab at startup.
* Includes command support for an automatic answer mode.
* New, full-featured GEM text editor with more flexible block commands.
* Almost all menu functions have keyboard equivalents.
* Includes Silent Line, background file transfer program.
* Supports the following protocols: ASCII, Xmodem, Ymodem, Ymodem-G, Zmodem, Modem7, WXModem, CIS B+, Kermit, SEAlink, and Telesoftware (for Discovery/ Prestel systems).
* Includes 226 page manual, fully indexed with a table on contents, tutorial, detailed section on all functions of the program, and a 50-page section explaining the DO script language.

John Trautschold, Missionware Software

FAST Technology Announces TinyTURBO030

TinyTurbo030 is our entry level 68030 based accelerator for the Atari ST and STe computer line. There are two versions, one for the ST, the STe (including MegaSTe).

The TinyTurbo030 has the following features:

* Motorola's advanced "030" running at 40Mhz!
* A spot for an optional 68882 FPU chip running at 60Mhz!
* Onboard 8Mhz 68000 chip for 100% compatibility, hard/ software.
* Fits all models of the ST and STe line, even the STacy.
* Optional Virtual Memory software for up to 128 Mb of "RAM."
* Makes your ST or STe up to 6 times faster in real world use.
* Equipped with Atari's new TOS 2.06, with some further enhancements!
* Bundled with CodeHead Technology's QuickST acceleration software.

Fast Technology has been honing this design to perfection for a full year now. We have numerous beta test sites and customers around the world, so TinyTurbo030 customers are assured of solid performance and a no-hassle installation and above all a very high degree of compatibility in 030 mode, and total compatibility in 68000 mode.

The 68000 onboard the TinyTurbo030 lets the user boot up as a stock machine, able to run any software, or use any peripheral which isn't compatible with an 030 chip, simply at the flip of a switch! The 68000 may also be set to boot off your original TOS roms, just in case TOS 206 compatibility is in doubt.

The Virtual Memory option is a sneaky software way of making your system "think" it has lots more than the standard 4 Megs of RAM ST/STe computers are capable of. This does require you to have 4 Megs of real RAM in your ST/STE, but for those who need ooooodles of memory, that's no big deal. The Virtual Memory option also includes an upgrade to the 50Mhz 030 chip and perhaps a bit high clock speed.

The TinyTurbo030 has been tested with Moniterm, ISAC, Matrix, Crazy Dots, and a few other obscure video addon boards. When you dive into the world of serious DTP and CAD work, and have invested in a big screen setup, you REALLY NEED an accelerator.

Using Atari's TOS 2.06 the TinyTurbo030 brings you the latest and greatest of Atari's operating systems. This new OS has been enhanced and made immune to speed. Your system will feel like it was designed from scratch, custom, just for you! We've added some nice features, too, like a user settable boot delay, and other "goodies."

The TinyTurbo030 has a list price of $999.00 US; compared to other accelerators of similar speed on other platforms, like the Amiga and Mac, this is a very reasonable price. But wait....

For a limited time only, till April 30th, 1992, the TinyTurbo030 introductory price is $599! Yes, only $599 will get upgrade your ST/STe to the latest technology, with a massive speed increase, the new Atari TOS, and still allow you to maintain total compatibility with your favorite oldies!

The only requirement to lock in this price is that we receive your deposit for 50%, $300, before April 30th. The other 50% is due when your TinyTurbo030 is shipped.

The FPU option is $299 ($50 deposit) and the Virtual Memory option is also $299($50 deposit). Include with your order a complete description or your system, and your option choices if any.

To order a TinyTurbo030, send your order, a complete system description, and deposit to: Fast Technology, 14 Lovejoy Rd., Andover, MA. 01810 (508) 475-3810. TinyTurbo030 comes with a 30 day money back guarantee. If you're not completely satisfied with your TinyTurbo030, simply return it. We are sure you'll have your socks blown clean off!

Atari Releases Hyperlist

Atari Computer Corporation has released a new software application for the Portfolio handheld computer. *Hyperlist* is a unique filing system which revolutionizes the way data may be organized in the Portfolio. Often described as an "outliner" or "database," *Hyperlist* provides the opportunity to create extensive lists, then attach "child" lists to each item in the "parent" list. On paper, the data flow resembles an organizational or flow chart.

Hyperlist is one of many optional applications developed specifically for the Portfolio computer by Atari. Other optional software titles for the Portfolio include *Finance, Dos Utilities, Chess, Instant Spell, PowerBASIC* and more. Over 700 files exist in the public domain for the Portfolio and are accessible on CompuServe and GEnie on line services.

Hyperlist is priced at $49.95 and is available from Portfolio resellers. For more information on the Portfolio and its applications, contact Don Thomas, Portfolio Marketing Manager, 1196 Borregas Ave., Sunnyvale, CA 94088. (408) 745-2000.

Home Accounts 2

ABC Solutions have appointed the North American distributor for *Home Accounts 2*, the finest home accounting package available for the ST. *Home Accounts 2* earned a Format Gold rating of 90% from *ST Format* magazine.

Home Accounts 2 is a comprehensive home financial management package. It can also be used to manage a small business. It includes functions for multiple savings, checking and credit card accounts, budgeting, portfolio tracking and net worth reporting.

Home Accounts 2 is priced at $99 Cdn or $85 US (plus $10 s&h). Ontario residents add 8% PST; Canadian residents add 7% GST. To order, send check or money order to: ABC Solutions, 4040 Creditview Road, Unit 11-151, Mississauga Ontario L5C 3Y8. (416) 824-8484, eMail: GEnie: ABC.SOLN.

Other products available from ABC Solutions: *Publisher 2 ST*, the successor to Timeworks *Desktop Publisher*; *First Graph*, a complete business and scientific graphing package; *K-Spread 4*, the advanced presentation spreadsheet from KUMA software, and *First Word Plus*, upgrades only from 2.xx or 3.xx to 3.2TT.

FOUCH Software Announces Mailing Manager ST

Fouch Software, a new software developer, is announcing the release of a very powerful, yet easy to use, mailing list program called *Mailing Manager ST.* Here are just a few of the features:

* Works on all Atari ST/Mega/STe/TT computers, color or monochrome.
* Up to 32,000 records per data file.
* Runs on a 512K 520ST with 280-600 records per file.
* Unique high-speed sort. Each record can be sorted by any word in the name field.
* Supports all parallel and serial printers.

Mailing Manager ST is available for $49.95. The price includes UPS ground shipping within the continental US. A demo disk is available for $5, which is refundable upon purchase of *Mailing Manager ST.* For additional information contact: Fouch Software, 1823 West 8th Street, Erie, PA 16505 (814) 455-1294.

MAST STR Show News

The Milwaukee Area ST User Group (M.A.S.T.) has just finalized plans for a second show in Milwaukee. The date of the show will be ***June 14th, 1992*** at Bowlero, Red Carpet Lanes in Wauwatosa, WI from 10:00 AM to 5:00 PM. The following vendors have already committed: Compu-Seller West, Apple Annie, SK Ware, Paper Express, MegaType, MS Design, MissionWare. Ticket Prices will be 3.00 dollars. Dealers or developers may obtain information about the show by contacting: GEnie ID: R.CARPENTE18, US "Snail" Mail: PO Box 25679, Milwaukee, WI 53225-0679. (414) 463-9662.

CompoScript

Goldleaf Publishing, Inc. is proud to announce the arrival of *CompoScript*, the state of the art PostScript interpreter for your Atari ST/TT. *CompoScript* enables you to print PostScript files on non-PostScript printers. In addition, a PostScript file can be shown on the screen and there is an option to convert it to a graphic file, so that you can subsequently import it into a graphics or DTP program which does not support PostScript.

CompoScript obsoletes other PostScript interpreters with its amazing features:

o Compatibility. A high degree of compatibility means no specialized fonts or customizing your software for the interpreter;

o Flexibility. *CompoScript* can be configured to automatically print selected files without any user input, and automatically delete files after printing. It can drive your printer directly or through the operating system. You may configure memory usage and the built-in virtual memory, and edit resolution for file conversion or screen display; even edit screen angle and frequency for grey scale output!

o Typefaces. *CompoScript* uses hinted PostScript Type 1 fonts, the highest quality font format available. It includes the standard 35 font set (designed by Bitstream) and not only can these fonts be used by other applications, but any Type 1 font may be used in CompoScript as a built-in font, simply by telling CompoScript the font location! In addition, the entire Bitstream Typeface Library of Type 1 fonts is available--over 1000 fonts!

o Screen Preview. Optionally view your file onscreen, at any resolution up to 600 dpi. Then press a key to immediately print the file.

o File conversion. Convert PostScript files or clip art to GEM Image (.IMG) or TIFF, popular file formats supported by almost all applications.

o Font Control. Define or edit font aliases for printing files with fonts you don't own, or for changing font definitions.

o Printer Support. CompoScript supports the following printers: Atari SLM 804/605 laser printers; Epson, Star, NEC, Panasonic, OKI, Scikosha & compatible 9 & 24 pin printers; Canon BubbleJet and compatible bubble jet printers; HP DeskJet, DeskJet Plus, and DeskJet 500 ink jet printers; HP, Epson, NEC and compatible laser printers. *CompoScript* supports 360x360 dpi printing, data compression, and unidirectional / bidirectional printing for printers that include these features.

Despite it's incredible feature list, *CompoScript* has a SRP of only $349.95. *CompoScript* runs on any Atari ST/STe/TT with at least one megabyte of memory and a hard disk. For more information, please contact us. Goldleaf Publishing, Inc., 700 Larkspur Landing Circle Suite 199, Larkspur, California 94939. Tel : 415/257-3515, Fax : 415/454-8106.

Talking To The World

The Junkyard Pussycat

by John Barnes

As recently as 10 years ago, networking, the process of hooking computers together with high-speed data links, was a luxury that only heavy hitters could afford. Today college students, laboratory workers, and businessmen can reach out and tap into computing resources across the room or around the world without looking up from their screens.

Recently, Ron Luks, Compuserve's Patron Saint of Things Atari, started a discussion on networking for Atari computers in CIS' Atari Productivity forum. The Junkyard Pussycat and his friends have explored many technical issues in an attempt to inspire hardware and software developers to bring Atari's ST, Mega STe, and TT computers into the latter part of the twentieth century.

In this day and age, any computer that lacks networking ability must be relegated to the status of a toy, likely to remain forever banished from the workplace.

The Early Days

In order to see what Ron and his friends are up against it is necessary to review some ancient history.

In the seventies, Xerox Corporation and Digital Equipment Corporation teamed up to develop a high speed communications link between computers that came to be called Ethernet. Rather than being carried from point to point by wires, the signals were transmitted by a coaxial cable that could be tapped into virtually anywhere along its length.

The technology of the time permitted such cables to carry about 10 million bits of information per second. The signals from the cables were (and still are) fed into devices called "transceivers" that pass them on to interface cards that convert them into the bits and bytes that computers can process and store.

Actually, messages are not sent from place to place. They are broken up into packets that are broadcast, one at a time, to all stations. The packets carry a label designating the sender and the recipient. The network nodes that are supposed to receive packets simply pluck them out of the ether and reassemble them into messages. If a lot of stations try to broadcast simultaneously the packets collide. This generates a signal that tells everyone to be quiet for a bit and to try again some random amount of time later. With a little luck the complete message will eventually get through.

Early transceivers and the associated interface cards were quite expensive, perhaps as much as $4,000 per port. The networking software was also expensive, on the order of $10,000 for use on a minicomputer with a modest number of users.

The Microcomputer Revolution

As time went on, Ethernet cards experienced the same increases in performance-to-price ratio as occurred with disk drives, printers, modems, displays, and the CPUs themselves. Ethernet interfaces for Macs and IBM clones can now be purchased for less than $300 and the software ranges upwards in price from $100 or so, depending on features and performance.

Peripheral Sharing

One driving force behind networking is the idea of sharing resources among many computers. Not every workstation needs a fancy laser printer nor does every station need a big disk drive and the associated backup disks and tape drives. Indeed, Ron Luks started the discussion in CIS because he wanted to share peripherals with his wife's MS-DOS machine.

Even small businesses gain significant benefits from placing data files on machines dedicated to file serving, whence they can be accessed by many different workstations. Schools and colleges are not far behind with this kind of local area networking.

Distributed Processing

Microcomputers are most efficient when they are not being asked to do too many jobs at the same time. They also lack the computing resources needed to tackle really big jobs. Similarly, big computers are not very good at providing interactive services.

Networking has helped to create environments in which many small workstations do the work they do best while passing off the big jobs to other machines with more computing power or mass storage. This kind of distributed process can be carried out on a small scale, as in an individual laboratory, classroom or small business, or it can be carried out on a global basis.

Most importantly, this distributed processing can be carried out more or less transparently across many different platforms. Macs, MS-DOS Machines, Unix boxes, and Crays can all share the network.

Atari Networking

One of the first examples of Atari networking was a game named *MIDI Maze*, in which MIDI cables are used to daisy-chain a number of ST computers to-

gether to allow the players to pursue one another in Pac-Man style through a two-dimensional maze rendered in three dimensions. While the Pussycat has never played *MIDI Maze*, he has observed, as a bystander, that there is quite a lot of lively interaction. The secret probably lies in the fact that the real information content of the game is rather limited, so that the slow data rate of the MIDI transfers is not a barrier to fun and excitement.

On the more businesslike side is *Universal Network*, which both the Pussycat and Dave Troy have mentioned in recent months. *Universal* allows Atari computers to talk to one another through a variety of connections. Older ST machines can use their MIDI ports for the interconnection, while newer Mega STe's and TT's can use their built-in networking ports, which are similar to the LocalTalk ports on Macintosh computers. *Universal Network* allows interconnected machines to access files on other machines almost as if they were resident on the machine that the user is typing on.

Data transfers across the MIDI connection proceed at about the same rate as reads from a slow floppy disk. The LocalTalk ports communicate at approximately the same rate as a normal floppy drive. The *Universal* people have done a good job of making their operating system independent of the devices used to transfer the data, so that we can expect improved performance as faster network devices become available.

Even with a MIDI connection and a little ingenuity it is possible to devise things like point-of-sale applications employing multiple Atari computers. Some distributed processing, as may be required in a publishing shop, is also possible because data files are generally small enough so that the transfer times between computers do not become too burdensome, particularly if large files are transferred in the background.

File server applications are not as satisfactory because the delays in launching programs across the network become unduly long, a problem that also exists on busy Ethernets.

A faster technology named Lantech is available for Atari-to-Atari communication. This system uses the cartridge port on all Atari computers. Individual cartridges are linked by coaxial cable, similar to thin wire Ethernet, and communication is said to be at near Ethernet speeds. Joe Mirando described Lantech in the January 1992 *Atari Explorer*, but informed sources say that its limitations are somewhat more severe than Mr. Mirando intimated. At a cost of around $180 per node, the price is comparable to that of Ethernet on IBM systems. A&D Software claimed that they were working on a similar product just before they experienced some severe changes in personnel.

A German product named BioNet is also available. This device supposedly connects to the DMA (ACSI) port on Atari computers and allows communication at Ethernet speeds. Repeated requests to European acquaintances for further descriptions of this product line have yielded only very sketchy responses. The name first appeared at about the same time as the TT computers showed up in Germany. The price is said to be upwards of $600 per port, which puts it way out of reach of U.S. Atari users. Fragmentary information about the software support seems to indicate that it is a strictly proprietary system based on a single server for the network, somewhat like Novell Netware.

Another German product, named PamNet, is also said to be available at an even higher price. The Pussycat knows nothing about the software for this system.

Aside from *Universal Network*, all of the above products appear to suffer from a lack of visibility in the U. S. marketplace.

A Different Drummer

The basic problem with Atari-only approaches is their inability to communicate with other platforms. The people who developed them appear to be ignoring basic industry standards that have a proven track record.

A more constructive approach would be to make the widest possible use of such standards in the hope of infiltrating Atari computers onto more networks. The technical sophistication of Atari users is such that they could make quite a splash if they only had a few simple tools to work with.

Atari seems to have recognized this, at least in the hardware area. The Mega STe and TT accept VME bus cards, although the Pussycat has not seen any packages that use this capability. Future machines from Atari may feature more powerful built in networking a la NeXT, Sun, Silicon Graphics, Macintosh, and other low-priced workstations.

Atari does not have a prayer in the low-end workstation market if it fails to provide its new machines with built-in Ethernet hardware. While that prescription may satisfy those well-heeled adherents who are willing to up the ante on their Atari investments, something ought to be done for the owners of older ST's and Mega ST's.

Gadgets by Small is marketing a new multi-function communications board named *MegaTalk* that features built-in LocalTalk connectivity. This should allow *Spectre GCR* users who run on Mega ST's to wire into a LocalTalk network with computers running AppleTalk. This solution may be a case of too little, too late, as the Apple world seems to be moving more into Ethernet.

Another idea seems to be taking shape as a result of the networking discussions on CIS. George Richardson, who is likely to be the one who inseminates this creation, has called it "EtherCart." George's Merlin Systems organization is one of the geniuses behind Gadgets' *SST* and *MegaTalk* products, so that there is interest from a hardware guru with a proven

track record. *EtherCart* is likely to be somewhat similar to *Lantech*, except for its use of standard Ethernet chip sets for transmitting its data. This should enable the accompanying software to draw on the most important industry standards, such as TCP/IP, that allow for nearly universal connectivity.

The importance of universal interconnectability is emphasized in a project with the cumbersome name of "Open Systems Interconnect" (OSI) that hardware vendors, software vendors, and computer users the world over are putting a lot of effort into. This project is intended to establish a sort of Esperanto by which a wide variety of operating systems will be able to share their data.

If the *EtherCart* becomes a real product, it will, obviously, be useless without suitable software. Getting *Universal Network* to operate using the Ethernet would be a good start because this product accomplishes, at a very reasonable cost, much of what the various flavors of Network File Sharing (NFS) do for the rest of the world. Real NFS for Atari to Unix and Atari to DOS should not be far behind.

There is, however, a base of public domain software in the Unix and Internet worlds that should make it easier to reinvent the wheel.

As a starting point, Atari networkers will need Telnet and FTP capabilities. Telnet programs are sort of like *Flash* for the Internet, as they allow a workstation user to initiate a terminal session on a remote host. FTP programs fulfill a function similar to that of *Kermit* or ZMODEM in that they provide for transfers of files and directory information between nodes on the network.

More sophisticated programs allow for graphical interactions through OSF Motif or X-Windows interfaces to remote hosts. NFS programs allow file systems from remote hosts to be mounted so that they look like local file systems (hard drives or folders) on the user's own machine.

Indeed, rough versions of Telnet and X-windows programs already exist for the ST line. The source codes for the Mac and IBM versions of Telnet and FTP are available in the public domain from the National Center for Supercomputing Applications. These may provide a running start for developers who want to take advantage of new hardware to talk to the real world.

When that day comes, Ron Luks will be able to access the big hard disk on his wife's fancy computer and be able to use her nice laser printer and tape backup. In that same era, the Pussycat and others like him will have the whole world for a Junkyard.

"Why Bother?"

Those Atari users who think of their machines as engines for productive work will surely welcome a soundly engineered system that allows Atari computers to connect with the rest of the world. Perhaps the future will see games, far more exciting than *MIDI Maze*, that require Ethernet speeds.

Networks are sprouting up all over—in classrooms, laboratories, offices, and small businesses. Collections of machines strung together on cables are replacing the dinosaurs of a few years ago.

The companies who plan America's telecommunications future are already looking to the day when virtually every home in the nation will be connected to worldwide networks through a fiber optic cable system. Many of the benefits of worldwide connectivity that are now available only in universities and government laboratories will be available to the home user. It is easy to foresee new kinds of consumer information services that will be much more accessible because of the speed of these new networks.

Many of the hardware and software products that enable that technology will be derived from the primitive kinds of things being discussed here.

Atari did not make the job of achieving these goals easy when they engineered the ST line, but the ingenuity of third party developers may yet carry the day. Let's hope that the X-windows terminals sitting on countertops in the kitchens of the 21st century will have a Fuji symbol on them.

■■■■■■■

CeBIT 1992 in Hannover, Germany

by Oliver Steinmeier
Atari Journal, Germany
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New records concerning the number of visitors and exhibitors were reported from Hannover, where the world's largest computer fair took place from March 11-18. To give you an impression of how big this show is let me just list some figures: 500,000 visitors, 5,000 exhibitors from 40 countries, 20 huge fair halls.

Of course, Atari had its traditional booth in Hall 7 where Atari itself and about 50 developers showed their (new) products for the ST/TT and Portfolio. As expected, the booth was crowded by people of all ages all the time; and it sure was a pretty stressful time for everybody working there. Answering the same questions over and over again must be pretty boring ("No, this program won't be available before May...").

The most important news from the Atari booth in my eyes was something that couldn't be seen there. I'm talking about the fact that *no new machines were shown there*, at least *not to the public*. A couple of ST Books were shown, lots of STes and TTs could be seen, but no Falcons, no Sparrows and no Turkey...

Instead of showing new hardware, Atari surprised the visitors with the first presentation of the new **MultiTOS** that is based on MiNT, looked pretty good to me, and will be available for all STs and TTs. The average user, however, will have to wait a couple of months before he/she can start a compiler in the background while editing the source file. Atari says that MultiTOS will not be available before fall. Hopefully, this year's fall. MultiTOS does not restrict the number of processes running simultaneously. The only limitation is the size of the Atari's memory. On the TT, MultiTOS makes use of the MMU to protect programs against each other.

Atari's second new product is **Atari UNIX**, which is now available for the TT. According to a demo shown on the **ST Books**, Atari's smallest ST will finally be available here in April. The **STylus**, the sensation of last year's CeBIT, wasn't shown, and I didn't hear anything about it.

Independent developers showed a variety of new software. Application Systems unveiled ***Pure Pascal***, developed by the same people who already gave us *Pure C*. *Pure Pascal* is said to be compatible to *Turbo Pascal* on MS-DOS platforms; and although this is hard to believe, a friend of mine who got a demo version said that it is even faster than *Pure C*. The price for *Pure Pascal* is $240.

Maxon announced a new version of MultiGEM called ***MultiGEM II***. The limit of six parallel processes has been removed. Also from Maxon is ***MultiTeX***, a new TeX implementation that kicks in some kind of multi-tasking which allows you to edit a file while printing a DVI file, for example.

Bela is offering another multi-tasking extension for TOS called ***MAG!X*** (pronounced Magics) which, according to Bela, is available right after the fair. It looked pretty good to me. 16 simultaneously running programs with a maximum of 16 windows, new GUI, new desktop and a price of only $90 are the most important facts about ***Mag!x***.

A new word processor called ***Papyrus*** is hitting the market, the program will have to prove that it's worth $180.

The German version of *DataDiet* was shown for the first time and caught a lot of interest. Artifex also presented the new desktop replacement, called *Ease*.

The German Atari magazine *Atari Journal* covered the show in special editions every day, produced live at the Atari booth in a special DTP center. Visitors were able to see the entire process of making a magazine. Everything from writing the articles to printing the magazine was done in public.

What else was there to be seen in Hannover? Lots of other products for the ST that I missed seeing or wasn't interested in. MS-DOS book computers with color displays were presented by many PC companies, with prices around $7,200.

Apple, of course, featured the MacIntosh PowerBooks, and gave away 10 PowerBook 100 computers in a lottery every day (still waiting for my prize). The smallest PowerBook 100 now costs less than $1800.

At the Commodore booth the new Amiga 600 was unveiled, a complete Amiga 500Plus in a case as small as a C64. The Amiga 600HD comes with a 20 Mb hard disk installed in that tiny case. The entire thing looks like a toy, is aimed at the consumer market and supposedly is meant to be the successor of the meanwhile nearly 10 year old C64. The new machines will be available right after the show, at least that's what Commodore said.

One thing I nearly forgot to mention is the new Atari ABC N386SX notebook, a 80368SX machine (20 MHz) with a 40 or 60 MB hard disk, VGA graphics and all the other stuff that makes it a typical MS-DOS notebook. I didn't see it myself, but a CeBIT magazine had a report about it.

If you asked me for a resume, I'd say that, even though there was no new hardware, the presentation of MultiTOS at least showed Atari's dedication to the ST line. Sure, I'd have loved to see a neat new machine, but, to be honest, what does it help us (and Atari) if we know about it and can't buy it right away? The ST Book was shown in Hannover last year, and it looked pretty good already, and it, nevertheless, took Atari more than a year to get it out to the dealers. Atari has to do some improvements to its development team; other (PC) companies bring out new notebooks twice a year. But bashing Atari all the time for not shipping a machine that obviously wasn't ready to be shipped doesn't help to keep the Atari scene together. One conclusion Atari apparently has drawn from this bashing is that they won't show anything anymore before its development is nearly finished.Let's hope they find a way to speed up the development of new machines...

STARTING BLOCK

by Richard Gunter

Self and Nonsense

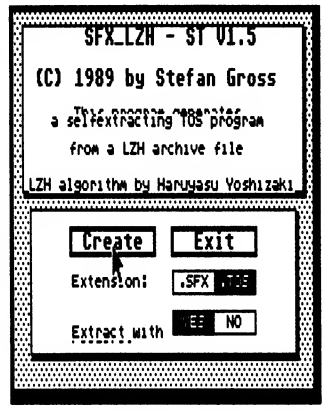
Actually, the "self" part of this column's title comes from Self-Extracting Archives and the "nonsense" part is, well, nonsense. Two topics really...

Self-Extracting Archives

For those who came in late, file archivers are programs that allow you to collect several files, or even entire folder trees, into a single compressed file that can be stored easily or transmitted by modem. Most items in BBS and commercial system download libraries are compressed files produced by a file archiver program.

Most of the time, one obtains a compressed file, then runs a separate program to extract its contents. Self-extracting archives (SEAs) are a different breed of cat. By the file name, it looks like an executable program file; the extension is usually PRG or TOS, sometimes APP.

Part of the file is really an executable program, the rest is an appendage consisting of a complete compressed file. The program part is an extractor that can expand the other files in the package.



Advantages and Disadvantages

To use a self-extracting archive, one simply runs it. All the files contained therein are automatically extracted to the folder containing the SEA file. That's all there is to it. You don't have to possess a separate archiver program or extractor, so the convenience is undeniable.

There are a couple of disadvantages. First, there's the working memory problem; you must have enough memory available on a single ramdisk, floppy, or hard drive partition to accommodate both the SEA file and the extracted files.

If disk space is at a premium in your system, some files could easily get too big for you to handle, while with a separate archiver, you might be able to arrange things to better advantage.

The other negative factor is that SEA files are somewhat bigger than their non-automated counterparts because of the space required in the file for the extraction program appendage. The difference is not huge: in one test of an LHARC self-extractor, I measured just under 3KB increase in size.

Building a SEA

At present, I have only one SEA construction program; it works with older LZH files only, and was written by Stefan Gross. To use it, I first run LHARC to compress a set of files. With the LZH file in hand, I then run SFX_LZH, which copies the file, adding the extractor program appendage.

There's a fly in the ointment; this program doesn't work with files made by the Quester version of LHARC. It *LOOKS* like it's worked, but the extraction will fail with a CRC error. Guaranteed. This phenomenon has caused some consternation on the part of well-meaning uploaders who failed to test the SEA they thought they'd made...

Even the lh1 mode of Quester's program fails to produce a file compatible with SFX_LZH. An older, slower program by Roger Burrows (LHA version 1.21) is compatible.

Double Click Software has a utilities disk containing a SEA maker for either ARC files or LZH files, but again the LZH version works only with the lh1 compression algorithm, not the newer lh5. DC is working on an upgrade, but at this writing it isn't available yet.

The DC disk has the only SEA maker for ARC files that I've heard of, and it's said to be fully compatible with ARC 6.02. I intend to buy the disk, but am holding off until the lh5 upgrade is available.

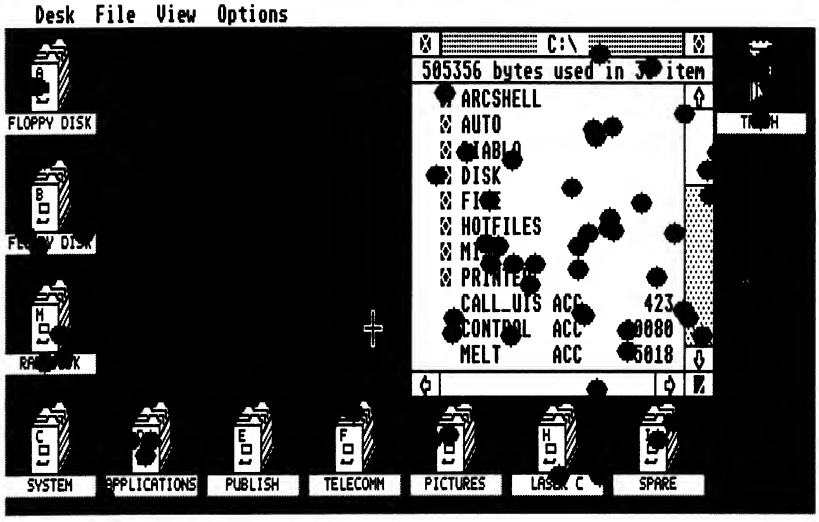
Nonsense, or Totally Useless ACCs

I seem to be slowly building up a collection of Desk Accessories. At last count, I had something like a baker's dozen on my C: drive. Without Codehead's *Multidesk* or something similar, I can only load six at a time, so it's a little bit of a hassle to use all of them.

Some are incredibly valuable tools that I wouldn't want to be without, but a few serve absolutely no useful purpose. It's a the latter that I want to introduce you to this month. All will run on a Mega ST with TOS 1.4, and none will actually damage your system.

MGUN

This program, written by Harlan Hugh, is my favorite of the group. It loads and sits in the accessories dropdown menu quietly until you click on its name to activate it. Suddenly, your mouse pointer turns



into a crosshair. The left mouse button will now blow holes in your screen with a machine gun sound effect (see illustration). Hair trigger, too; it's difficult to squeeze off a single shot.

MGUN is just the thing when you just can't take the frustration any longer, and it beats using a *REAL* machine gun on your monitor. (Sorry, Mr. Small).

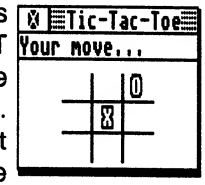
Click on the right mouse button to deactivate the machine gun and repair the holes in the screen. Hey, I said these programs are totally useless, didn't I?

MELT

After the machine gun, you've probably anticipated what this one does. It "melts" your display. The whole image just kind of melts down toward the bottom of the screen, almost as though you're having your own little China Syndrome. Again, a mouse click stops the process and brings the screen back to normal.

TTT

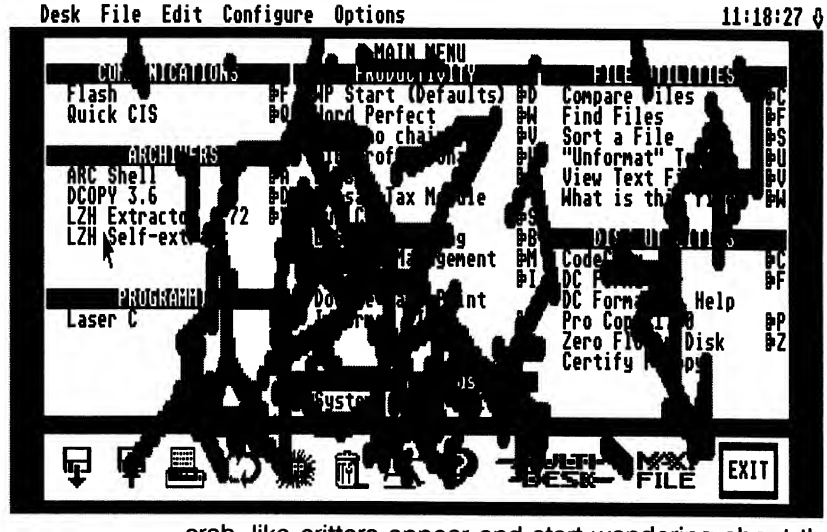
I found this program on CompuServe; it's an accessory that plays tic-tac-toe. It plays the game well, too--you get first move, and it won't let you win. Which is as it should be.



The author, Marcus Wilhoit, states that TTT will run on any of the three ST resolutions. Unfortunately, it doesn't like *Hotwire 2.3,* the version I'm using at the moment. Causes a warm boot before you get to do anything.

CRABS

CRABS loads innocently enough, but innocence soon ends. After a few seconds, a group of little



crab-like critters appear and start wandering about the screen, eating everything but the background and leaving a background-colored trail behind. Occasionally, they multiply...

This is the most annoying of the three programs in that the only way to get rid of the little beggars is to reboot with the accessory disabled entirely.

An Appeal

I'm interested in locating other nonsense accessories and programs, so if you run across any such, please let me know about them. I can be reached by mail through Current Notes and also via the ARMUDIC BBS in Northern Virginia. I'm also a regular in CompuServe's Atari forums (user id 70117,2565).

If enough responses turn up, we'll do another column on Atari whimsy.

Hands On with Some New Products

Plus A Special Ice Cream Treat Your Pet Will Love!

Ah, yes, Spring is upon us. I am wedging this article in between a lot of other work. The 56-page Spring & Summer Toad Computers catalog is very much my 24-hour project right now. And we're planning now to move the store. For that I must pretend I'm an architect. And, of course, there's school, where I'm writing a great paper about the conquest of the Aztecs, another one about an imagined encounter between Porky Pig and Elmer Fudd's grandson, and another one about Blade Runner.

I don't normally plug store stuff here, but giving you a bit more information puts this article into context. If I start to sound like the catalog, i.e. give quirky product descriptions, you'll know why. Or if I start criticizing big, conquistador-like corporations, such as IBM, you'll know why. Or if I slip into a reality where cartoons marry humans, or I painstakingly list specifications about electrical outlets and paint color, you'll know why.

SM147 Monitor

We received our first big shipment of these monitors a few days ago. They are really pretty nice. Physically, they feature a tilt-swivel stand and a 14" flat picture tube. The monitors are about 12" deep, and the case is contoured to fit the picture tube, so you have a sleek, mini-malist design.

It is important to realize that Atari did not design or really even custom-specify this monitor. This has some interesting consequences, some more important than others. First, the SM147's grey case plastic doesn't closely match other ST-grey products. It's much darker, and it makes my Mega STE (upon which the SM147 rests) look very pale. But it doesn't look unattractive. The SM147 also has a certain "Taiwan Monitor Number 6" appearance to it. That is, it's a very generic looking monitor (those of you familiar with WYSE terminals will recognize the case in a heartbeat) and it does not have any subtle or artistic Atari logo on its face. Rather, there is a little depression in the plastic about a half inch tall by two inches wide, into which Atari has stuck a little blue and white ATARI nameplate. So, if you're used to the typically aesthetically pleasing Atari design, it's a bit permuted in the SM147.

Unfortunately, the monitor doesn't have a speaker. The reason for this is that it is basically a modified super-VGA monochrome monitor, and PC's don't have speakers, do they? The rationalization for this omission is that the new Mega STe and STE machines have audio out ports which allow for the connection of a stereo system or amplifier. Non-STe owners will have to make other arrangements, like living without sound in monochrome, or if they use a monitor switchbox, piping their audio out of the switchbox to an external amplifier. I've long since given up making a value judgment on the wisdom of an Atari decision. So far, I've found that sales on these monitors have been astronomical (albeit there had been an intense shortage of SM124's) and the response from the public has been great.

As far as picture quality goes, I don't think that anyone would say that the SM147's picture is sharper than the SM124, but it has received such reviews as "better than the SM124's picture quality." The SM147 has a slight green tint to it, where the SM124 was closer to white, but bluish if colored at all. There is a slight horizontal "ghosting" effect in the SM147 (something that may be curable with a modification--stay tuned), and, while not a problem, *is* noticeable. Blacks are not quite as black and the contrast is not quite as intense as on the SM124, but the overall quality is still quite good.

According to an informal public opinion poll I've been taking, it's the SM147's real 14" screen size that goes a long way towards making up for any deficiencies the picture might have. People have been so blown away at the physical size (the image area measures at just under 13", which is exceptional for a 14" tube), that they're willing to forgive other shortcomings about the monitor. A great feature of the SM147 is that it has external, accessible, adjustable, real—not pantomime horizontal and vertical width controls. So the picture size can be adjusted to suit your particular taste—all the way to the edge.

Because the SM147's picture tube is flat, you can adjust the picture all the way to the edge without severe defocusing in the corners (or zapping yourself to the moon, which was apt to happen when fidgeting with the internals of the SM147). The SM124's screen has a somewhat matte, anti-glare quality, which is nice on a monochrome tube. The SM147 has an anti-glare coating, which is not quite as convincing as the SM147's "frosted glass finish," so there is a bit more

glare from the SM147 than on the SM124, but not enough to be a problem—especially in darker rooms.

The overall rating on the SM147 is good, a good product at a good price. It retails for $199 and can be found on the street at about $189. They are fully available at this writing.

Mega STe H-D Drive Kits

Also made available recently was the Mega STe high-density drive upgrade kit. While dealers may install these kits into Megas before they ever leave the door, this kit is supposed to be a retrofit, user upgrade for existing Mega STe machines.

It includes an Epson SMD-340 high density disk drive, (a perfect cosmetic fit for the Mega STe), the new Atari AJAX drive controller chip, as well as an EPROM copy of TOS 2.06. All that you have to do to make a high-density drive work in a Mega STe is open the machine up, unscrew the floppy drive, replace it, plug in the AJAX and the new TOS, flip the seventh dip switch (under the hard drive, towards the front), and you're set for a lifetime of high-density thrills! You'll be able to format high-density disks from the desktop, and you'll be able to read your favorite IBM high-density disks. This upgrade kit works great and can be found on the street for about $139.

TOS 2.06: The Beat Goes On

Atari recently released TOS 2.06, something that's been awaited with more hoopla and fan-fare than any Atari product in recent history. There are several ways to go about installing TOS 2.06 in your machine.

If you have a 520 or 1040STe, you probably have two 32-pin sockets installed in your machine already. All you have to do is open your machine up, find the sockets, and plug the new TOS in. (A couple of jumpers must be re-soldered as well—see "Myths and Mysteries" from the December 1991 *CN.*) Some STe machines may not have the 32-pin sockets. As TOS 1.6 and 1.62 only require 28-pin sockets, that's precisely what you may find installed. Some STe's have their TOS soldered in the board. Sure it's dumb, but you're going to have to get 32-pin sockets in there no matter what. If you're not comfortable doing it, I'm sure that a qualified someone (getting paid $40 per hour) would be.

If you have any other ST machine, Codehead's TOS Extension Card is the solution for you. If you have a Mega ST, and no other Mega Bus devices installed in your machine, you can simply plug in the Mega ST Bus version of the TEC. Viola, you will have TOS 2.06 on your machine.

If you have a 520 or 1040ST, you will need either the CPU Bridge version or the standard version. The standard version looks like a bunch of snakes gone nuts. You have to solder about 20 wires to various places on the address bus. This is a big pain. It is intrinsically prone to cold solder joints, loose connections, and simple connection mistakes. The CPU Bridge version, while most people cringe at its demands, in my opinion is probably more reliable and easier to install. Yes, kids, for the CPU Bridge version you must de-solder your 68000 processor, install a socket, and sandwich the TEC between the chip and the board. Maybe it's just us; we Toad guys have gotten to be quite good and quick at desoldering 68000's and installing sockets. And keeping the 68000 in good shape and still operational has become a habit. So, that method, for us, is quite reliable—more so than the standard installation.

The TEC itself is a small card, and can be placed just about anywhere inside your machine, once the proper connections have been made. This means that you won't have conflicts with other internal gadgets like RAM upgrades, clocks, emulators, or sound enhancements.

The TEC Mega Bus and CPU bridge versions sell for about $149, and the standard version is marked at $139. Both include good instructions, the TOS 2.06 chips themselves, as well as a nice PD disk from Codehead with some helpful utilities, including Atari's Extensible Control Panel.

I feel like I (and others) have written extensively about the features of TOS 2.06, but to give a quick "Why Should I Buy This" rundown, I will summarize some of its stronger points. TOS 2.06 includes the ability to place programs, data files, and folders onto the desktop as icons. Icons may be colorized and customized with commercial icon editors and every file or desktop icon may have a custom icon assigned to it. You may assign function keys to your favorite programs for quick access from the desktop. For example, I could tie *PageStream* to the F7 key. Every desktop drop-down menu function is user-assignable to a keyboard equivalent. For instance, you can tie "Close Window" to the space bar. Or you can tie "Format Floppy Disk" to the [+] key. You can color windows, and all of their many components, however you like, via the "Window Colors" CPX included with the Extensible Control Panel. You can change the color and pattern used on the desktop. A "Desktop Configuration" menu option allows customizing of many features, and it also shows free memory. If you have a friend or local Atari dealer nearby, go play with a Mega STe or TT to see if you really need the new desktop. For less money (on standard ST machines) users may consider the older TOS 1.4, because 2.06 is functionally very much the same as 1.4. Most of the changes made in 2.06 were cosmetic.

Mega STe Prices Fall

Atari, in a move to encourage sales of Mega STe's as well as move their SC1224, SC1435 and SM147

monitors, has announced an aggressive discount program on monitors. At a heavy discount, users may purchase monitors with their Mega STe's. An SC1224 or SM147 can be had for under $200 with the purchase of a Mega STe, and a SC1435 falls under $300. With the earlier Mega price cuts, this should bring these machines into many people's budgets.

The Mega STe has many features that make it perfect for the ST user who wishes to upgrade. Someone with a standard 1040ST can take care of at least three upgrades, at quite a savings, just by buying a Mega STe system. For example, the Mega STe incorporates easy and reliable SIMM memory upgrades. It can include a hard disk. It runs at 16MHz, eliminating the need for an accelerator. It also has the VME expansion port, so future expansion is reliable (and possible). We mustn't overlook the Appletalk port. So, we see that for around $1,000 at this point (under $1,200 with a color or monochrome monitor) somebody can get a 16MHz, 2MB RAM, 50MB HD system and a detached keyboard. Upgrading a 1040 to the same level could easily cost $1,100, and up to $1,400 or more with a monitor. Finally, buying a new computer, instead of upgrading, does seem to make some sense.

Last Batch of Stacy's Found

While we all hurry up and wait for the ST BOOK, users desiring a portable ST have been shut out due to Atari's dismissal of the Stacy computer line. Well, last week Atari found some more. Those of you who would like to get a Stacy before they evaporate, the time is now. They will not be available much longer. I have not received any current word as to when the ST Book will hit the streets, but just like you, I'm hoping it's soon.

TT030's Finally Available

After waiting a really long time, Atari dealers and users can look forward to what may be the first in a long line of TT030 shipments. I received word that we would receive an appreciable quantity next week, and users are lining up to buy them. I don't have official word yet as to whether these machines are the new super-funky "Japanese FCC class B" machines, but I'll keep you posted.

Atari 386 Machines

Atari shipped another long-awaited machine recently. We received our first batch of the 386SXII machines. The systems include 1MB of RAM, MS DOS 5, Windows 3, a keyboard, mouse, 512KSuper VGA card, one parallel and two serial ports, one 3.5" 1.44MB drive, game and joystick ports, and a 220 Watt power supply. The processor in this machine is an Intel 386SX running at 20MHz, and the board has six expansion slots. The 386DXII unit, which I have not seen yet, is said to include a 386DX running at 40MHz, and will have nine expansion slots.

The most noticeable thing about these 386 machines is that they're physically a bit huge. Sporting a big, heavy metal case, these machines couldn't cause radio interference if they tried. The front features a power switch (there's a first), as well as a "Turbo" switch, an LED display to indicate speed, and a reset button. There are three 5.25" drive bays, plus more room internally for hard drives.

These packages are reasonably priced and are easy to set up. For about $1,000, you can get the 386SX machine, (which runs comparably to the Mega STe), and for about $1,600 you can get the 386DX machine. See your local Atari dealer for more information.

New Supra Modems

Supra will soon be releasing what have seemed to be the most anticipated modems in the world--ever. Their SupraFAX v.32 (regular and bis) versions have received the most attention. The SupraFAX v.32 will transmit data and faxes at speeds of up to 9600 baud to other v.32 modems. The v.32 retails for $299 by itself, and can be purchased with send and receive fax software for Windows or Macintosh. On the ST front, the Washington area's own Charles Smeton has written the *JuST the Fax!* software, to be announced in Toronto, that will allow the Atari to send or receive faxes with these modems just like everybody else. The v.32 bis version will send and receive data or faxes as well, but will go as fast as 14,400 baud on both counts. The bis version retails for $399.

Over and Out

I thought you all might just like a little news update for a change. I'm off to write about Cortes now. He was a major conquistador. For whatever reason, he was able to subjugate the whole of the Aztec people, using only a fraction of the manpower (plus cannons.) If you have any questions or comments about this or any Myths and Mysteries discussion, please feel free to call or write!

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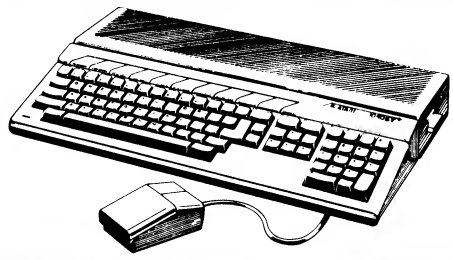
■■■■■■■

Correction: I mention in the January/February article that the Western Digital chip you need is the "-02" variety. What you should really look for is "02-02" under the 1772 part number, and not "00-02." This has caused some confusion. Also, in my table describing the behavior of the clock signal fed to the drive controller, there is a typo. In the second row, sixth column, there is an "OFF." It should read "ON."

■■■■■■■



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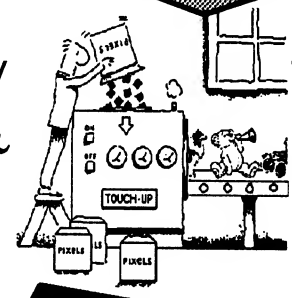

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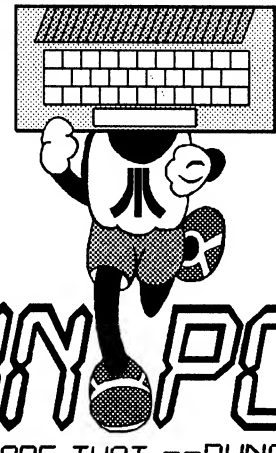

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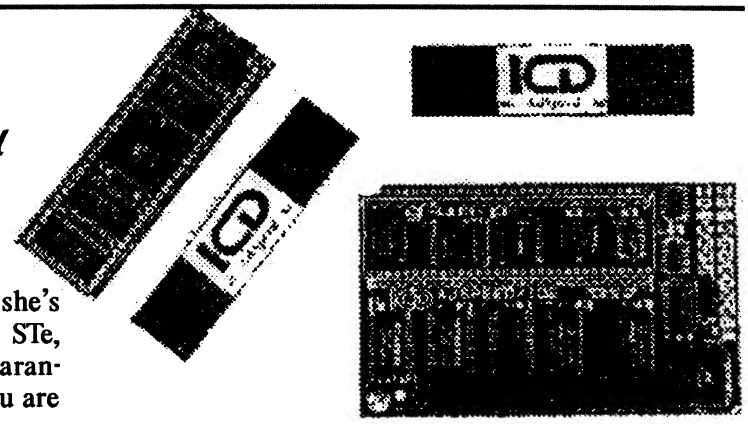


Warp speed Scotty, I need every bit of power she's got! If this is your attitude towards your 1040 STe, then ICD's AdSpeed STe accelerator board is guaranteed to make you smile. If, on the other hand, you are totally satisfied with the speed at which your STe currently performs, read no further. This article is only for those who are always looking to squeeze the maximum power and performance from their system.

Face it, the Atari 1040 STe brought us some very nice enhancements, but speed was not one of them. Instead, Atari chose to introduce that upgrade with the debut of the MEGA STe line (along with a dramatic price increase). Fortunately, for those of us who covet the old but hunger for the new, developers are still producing enhancements which, for a price, keep us from the drastic (big bucks) move to "Other" computers. ICD is one such company, and their first accelerator for the ST appeared approximately one year ago. Now, they have released an enhanced version for the STe. This accelerator board delivers 16mhz of power while maintaining a high level of software compatibility when operating at that speed. The STe incarnation retails for $349.99 direct from ICD, but I saw it for $225.00 from an Atari dealer.

What's Included

AdSpeed STe is a compact board with a 16mhz Motorola 68000 chip, a 32 kilobyte high speed static RAM cache, and a socket for a floating point unit (FPU). You also receive a software disk with programs to control the accelerator (more on this later) and a 24 page instruction manual. I found the manual to be well written, though it contains no installation diagrams.

Advantages of an FPU

The FPU functions, essentially, as a math co-processor does and will dramatically improve the speed at which the STe performs its routines. However, a software program must be written to access the FPU to realize the processing gain. Only one program (that I know of), *DYNA CAD*, meets this criterion. Well then, why bother to have a FPU at all? Consider this; a program written to take advantage of the FPU's power can result in performance gains of 1000 to 2000%! And knowing that the MEGA STe and TT line *are* also socketed for the use of a FPU, it is only a matter of time before we see more programs that take advantage of this chip. What it means for us power users, is that our STe remains a competitive alternative to those "Other" computers.

Installation

While the accelerator board is designed to plug into the existing 68000 chip socket (no soldering required), ICD recommends that you have your dealer perform the installation. I checked with local dealers and was quoted prices from $25 to $40 to complete the task. Not a bad price for those who have no interest in examining computer "innards." But, being a "tinkerer," I opted to perform the installation myself (keep in mind that you risk voiding your warranty when you do this). ICD's instructions call for removal of the case, keyboard, disk drive, RF shield, motherboard and power supply to gain access to the 68000 chip. I chose another route. After removing the case, keyboard, disk drive and screws holding the RF shield, I bent the forward half of the RF shield upwards, thus gaining access to the 68000. This eliminated the need to remove the motherboard, power supply and RF shield (I'm sure ICD wouldn't recommend this, and I assume no liability if you choose this method). All went well, including removal of the old 68000 chip, until it came time to physically insert the board into the socket. Here, the instructions got hazy. ICD states the board is designed to be inserted one way and that the white writing (ICD AdSpeed) should appear right side up. OK, but which way should the writing face? right, left, forward? A call to ICD resolved the problem. The writing goes facing the front of the machine, as you normally read from left to right. My confusion was a minor problem compounded by a cautious nature (who wants to fry his computer?). Ok, no big deal. But a diagram would have eliminated the phone call and instilled greater confidence. With that clarified, I snapped the board into place with slight pressure and by reversing the disassembly process, completed the job. The entire installation (minus phone call) took 35 minutes. And yes, this board fits within the case without interfering with any other component.

The Smoke Test

Re-connecting power and all peripherals, I threw the switch. The STe booted up normally (no smoke or sparks) at 16 mhz (the default setting on the AdSpeed board). You have the option to set a jumper on the accelerator board to boot at 8mhz (important to you avid gamers). Now it was time to install the supplied software.

Options and Software

ICD made provision for installation of a hardware switch to select between 8 and 16mhz (you supply your own switch). However, this is quite unnecessary as the change can be easily accomplished through the supplied software. On the disk are several programs:

8MHZ.PRG and *16MHZ.PRG* select your system speed by double clicking, or place them in the auto folder of a boot disk for the same purpose.

ADSPEED.PRG placed in the auto folder, this program provides an on-screen speed indicator, a hot key for speed selection and automatic switching for applications you specify. It can also be run from the desktop by double clicking on it.

ADSPEED.ACC allows switching between 8 and 16mhz when used as a desk accessory or run from MULTI-DESK. You can even change speeds while running a program, providing the program allows access to your desk accessories.

ADSPEED.CFG using this program, you can set up configurations that allow you to make programs automatically boot up at the proper speed.

QUICK ST II A special version of this program is included to enhance the STe's screen operations and work with the accelerator board. Both the color and monochrome versions are provided.

QST2CUST.ACC Allows a custom desktop background and you can switch QUICK ST on and off.

QINDEXI.PRG can be run as an accessory also (change prg to acc) to test the performance of your system configuration.

Essentially, all this software, in the proper combinations, allows you to configure your programs to run at their maximum speed at the touch of a button. This is truly a nice touch which gives you maximum control of your specific configuration and preferences.

Performance Tests

These are tough to perform in an objective manner. I ran my tests in mono-chrome (high rez) with *QuickST* and *G+Plus* loaded and the blitter on. These are my normal settings for text and document processing. Using the QINDEXI.PRG, I performed two tests with the configuration previously listed. One at 8mhz and one at 16mhz. The results are shown in the table.

By reviewing the numbers, you can easily see that some processes are doubled in speed and others are only slightly improved. While running programs in color is slightly slower, the performance improvements are proportionally the same as in monochrome. These tests illustrate the performance differences at the two speeds but they don't have a lot of meaning to most of us. I can tell you that graphic redraws and text scrolling are much improved. Windows snap open and shut much faster. Spell checking, word search and replacement are dramatically faster, as are desktop publishing functions and spreadsheet recalculations. *PC DITTO*, a software MSDOS emulation program and the programs used with it run as fast as my Supercharger (MSDOS hardware emulator). There is also a dramatic increase in the speed of the programs I use with Spectre GCR (Macintosh emulator).

	With Quick ST		Without Quick ST	
Test	16Mhz	8Mhz	16Mhz	8Mhz
CPU Memory	164	100	164	100
CPU Register	204	100	204	100
CPU Divide	203	100	203	100
CPU Shift	207	100	207	100
DMA 64K Read	5173	5173	5127	5127
GEM DOS files	429	429	429	429
TOS Text	541	329	151	99
TOS String	2935	1751	155	99
TOS Scroll	107	103	105	100
GEM Dialog	390	249	141	96

An added bonus is game playability (for those that work at 16 mhz). For example, *Their Finest Hour (Battle of Britain)* is now at its finest! While I liked the game a great deal at 8mhz, the slow response time was very annoying in those intense dogfights. Now, the game, with full graphics and sound at 16 mhz is faster than at 8 mhz in the least detail mode, with sound off. Scrolling is incredibly smooth and the enemy trembles at the mere thought of their opponent flying at 16 Mhz. *Falcon* (I and II also) perform equally well.

Compatibility

Programs tested that work at 16mhz:

Publisher ST	GFA Draft+	Superboot	Their Finest Hour
Calamus 1.09	CyberSculpt	VKiller	Falcon Miss Dsk II
PageStream 1.8	Neochrome	MultiDesk	HyperCopy
Wordwriter ST	Degas	Maxifile	Cheetah
WordUP 3.0	Degas Elite	Labelmaker	Unarc
Phasar 4.0	DCFormat	LabelJRB	Unlzh
Music Studio 88	Hotwire	BattleChess	Unzip
Quartet	UIS III	AirWarrior	EasyDraw
PC Ditto	VanTerm 3.71	CyberPaint	G+Plus
Spectre 3.0	Bootspy	SimCity	
CyberCad	FinCalc	Ez–Draw SuperCharger	

Programs tested that won't run at 16mhz but do at 8mhz:

GFA Artist	Art Director	Film Director	Spectrum 512
ProCopy	RR Tycoon		

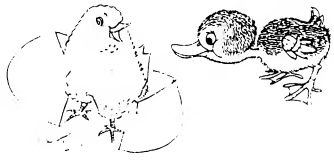
The Bottom Line

Is it worth spending $225-$350 (US) to accelerate your STe (or ST if you opt for that version)? If you've read this far, you know the answer is a resounding "YES"! This accelerator is well made, easily installed and delivers excellent performance. It's guaranteed to boost your productivity or increase your flight simulator enjoyment. And with the price difference in the cost of a MEGA STe, you can afford those numerous software titles you've been craving.

For AdSpeed STe 16mhz information, contact:

ICD Incorporated
1220 Rock St
Rockford, IL 61101
USA
815-968-2228 (Phone)
815-968-6888 (Fax)
or ask your local dealer.
CodeHead Technologies

ICD Europe GmbH
Am Goldberg 9
6056 Heusenstamm
Germany
0-61-04-64-03 (Telefon)
0-61-04-67-58-1 (Fax)



TOS Extension Card

A New Computer in Your Cabinet

by R.E. Mariano

The package arrived at about 10:30 a.m. on Tuesday. In it were a bunch of TEC cards, assorted, and TOS 2.06 chipsets.

By 12:30 p.m., shortly after noon, the chipsets were installed in three STe machines and the TEC cards were in three Mega ST4 machines. The installations were not difficult. I repeat, not difficult, but one must pay attention to detail.

The installation of the TEC card itself is made somewhat easier than most since it appears that most obstacles were examined and solved before the first TEC was ever shipped. The only undocumented feature we found was in the installation of the TOS chips in the 520-1040STe. The docs say the chips go like this: U103 gets the EE chip and U102 gets the EO chip. Well, it really is the exact opposite. The jumper instructions were perfect for all the machines. The installation was very easy.

Now, on to the installation of the TEC units themselves. We installed the CPU versions and, of course, that went very quickly. The T-16 fit is a little tight, but we corrected that with a very fine file. By filing, ever so slightly, both the edge of the T16 card and the edge of the ribbon cable connector on the TEC, the fit was made perfect.

TOS 2.06

First off, the operations of the New TOS are quite different from the older versions. The older the version you are upgrading from, the more dramatic the difference in performance. When you first bootup, you will be surprised at seeing a large Fuji symbol on the left side of your screen and right beneath it will appear a "marching bar" that tells you its doing a memory check on the system. Shortly thereafter, another bar appears that's doing a countdown for the hard drive to come up to speed. Now enters NOROACH! With Noroach installed, the receding bar is bypassed by the timing function in Noroach. All very simple and neat.

After the initial bootup, you will enter a "TOS Wonderland." First, let me say that, after extensive testing, *flow control is fixed*! It's fast, smooth operating, and sure footed. Back to the program. This TOS has features on, in, and under its features. It's a real powerhouse. The booklet that comes with the TEC unit is well written and explains the TOS to a TEE. The power of the Desktop is like nothing you've ever seen before. As a teaser, the ability to scroll windows with files already selected is only one small user comfort afforded by this version of TOS. TurboST, unfortunately, can't help this version of TOS; it says it's there, but, alas, it really is sleeping.

One very neat feature of the *new* TOS 2.06 is the "help key." It really does work in this version. It gives the user real help information when pressed. The Drop Down Menus for the TOS are a treat in themselves for, when each is viewed, one will see new features on each and every one of them. Of course, the main attraction of this TOS is the use of icons and color for both icons and windows. This version will also accommodate the highdensity floppy drives once they are available from Atari. You are also allowed more than four windows open at the same time. The built in hot keys are a very strong feature as well as the "select all" function. Like I said, the features are far too many to mention them all in this small article.

One thing is for sure, however, if you have any inclination to upgrade, don't hesitate to get this TOS upgrade; it's almost like putting a new computer in your cabinet. Besides, this TOS will work with the new high density 1.44mb floppy drive upgrade due appear from Atari shortly.

[Reprinted from STReport, February 28, 1992.]

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Fast Technology's Turbo 030

Well Worth the Investment

by Ralph E. Mariano

Fed Ex arrived on Saturday morning two weeks ago. As the driver walked to the door, I mentioned to my son Victor that "this must be from Jim Allen." After all, he said he was going to use FedEx. Allen's got real class. As I opened the cardboard box, my heart sank! I could hear "rattling" inside. No, it wasn't a snake! I removed the remainder of tape on the cardboard box and finally got inside where I found another box. This one was a special, "electronics shipping container" one corner was crunched, (the front left), a piece was broken off both the top and the bottom in that corner.

Once the tape was removed from the rigid box, I opened it too. In it was found a very well cushioned PCB whose design was gorgeous. When held up to a bright light, it became evident that this board was of the highest quality and deeply multi-layered. Light simply would not pass through where the layering was.

The Board had the 68030 and its companion math co-processor installed. The appearance of the board and its layout is very impressive. Every inch of available space is put to good use. Ok, so much for the good looks of this zoomer, let's get to the good stuff. The actual installation took all of 2 minutes! It took 15 minutes to remove and replace the cabinet screws. ‹sigh› The sweet aspect is there were *no* ancillary programs to run, no software patches for the auto folder, and absolutely no initial bootup problems. The board arrived with a disk and very simple, easy-to-follow installation instructions. On the disk were the normal TOS 2.06 files, cpx files and a few normal files like Pinhead, etc..

Almost every major software package in my library was checked with Fast Tech's 030 40 Mhz Zoomer. The moment the system was turned on, the change was more than evident. Bootup speed was lightning fast and, of course, the new TOS 2.06 was dynamite. The entire system responded beautifully to the 030. Everything was "smiling."

Now, for a closer look. Let's consider *Pagestream's* print speed for a normal file with two images in it, (8 seconds), everyone, myself included, makes noises about how slow it is when printing. Imagine, *Pagestream* running as fast, if not slightly faster, than *Calamus 1.09*. Better yet, *now* imagine my pure amazement when I ran *Calamus* and printed a similar file. (4.5 seconds.) It printed so fast, that the "print screen" hardly had time to arrive! The screen redraws on both of these programs where a sheer *delight* to watch. Jim Allen has certainly outdone himself with this 'rocket' design. *Pagestream* has all the fast bits set for fast loading (including the drivers and importers) but I've never seen it load in three seconds. Almost "eyeblink fast." *Calamus* ran like the thoroughbred it is. It "seemed to sense" the increased speed and zipped right along effortlessly in every function I tried. During our Usergroup Meeting, one of our members, Scott Lemmon, tried the system and remarked at how fasssst the scrolling moved in the desktop's windows.

Moving right along, I booted *Touch-Up* and proceeded to load in my favorite image file. The Enterprise was drawn in a moment or two, the real speed increase was also incredible with the re-draws. *MegaPaint* was absolutely divine at this speed. "Eyeblink fast" is an extremely conservative description of the performance the 40Mhz 030 gave my DTP system. Mind you now, this was all on a 24" monitor, you know, the one that everyone says "takes longer to do its thing because of its size"? Let me tell you this, the Image Systems monitor was "rockin 'n' rolling right along." It was as fast, if not faster still, than my SM147 at 16Mhz doing normal everyday things.

Now comes the moment of truth. I mean ... what program do I use the most? Hard to say, but between the Archivers and *Word Perfect* it runs about equal. Which means I have plenty of experience with both. Now that I've established that, let's look at *LZH*. Coming from a quick 16Mhz Mega4 system (T16), to the 030's 40Mhz certainly removed *all* "the wait" out of LZHing or UNLZHing a file. The hash marks dropped in 1/4 second increments, very Impressive. ARC 602 went so fast it threw smoke the first time I ran it. 40 Mhz is quick, really, *very* quick.

Word Perfect 4.1 (April 18, 1991) was about to get a double dose of hyper-adrenalin. If WP's people could see this baby smokin' along they'd probably re-think their position on upgrades. I use WP every day and most all day on Fridays. ‹grin› The Spell Checker is slooow, or should I say is usually slow. With Mr. 030 in the Mega4, the Spell Checker did a 160k file in a matter of seconds. Next the Ascii Printer would taste the effects of the 030. Every week, *STReport* is printed to disk as a formatted ascii file. Every week, like clockwork, I can take a short hike as this event takes place. For two weeks though, the time to print the entire is-

sue to disk was almost momentary when compared to the usual 10 to 12 minutes it normally takes. The longest it took with the 030 installed was 2 3/4 minute for a 160k file.

I can remember a while back when I was on the phone with one of the support people at WP, I asked about the Dictionary Optimizer. He said it takes forever, but he said it too late. I had already booted it. It was running under the T16 and was completed in less than a minute and a half. The support person was astounded. Can you imagine the surprise they'd get now when they saw the Spell Optimizer complete its task in 54 seconds? It normally takes well over three minutes to do a well used dictionary.

In closing, if you are contemplating the addition of this fine upgrade to your system, don't hesitate. Go for it! The remarkable improvement is more like installing a new computer instead of an internal upgrade. The installation, once again, requires absolutely no soldering or the use of *any* special bootup or patch programs. This unit is well worth the investment. Its design is truly professional in every sense of the word.

[Reprinted from STReport, March 13, 1992.]

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External Hard Drive for Portfolio

by Mike Heininger (c) 1992

Surprise Solutions

One of the best things about computer dynamics is that just when you think you have a problem without a solution, an enterprising third party comes to the rescue—as in a snazzy 20-megabyte hard drive for the DOS world's wee Atari Portfolio.

Wait a minute, you say, "You don't even have a Portfolio! What do you know about this external hard drive?"

Well, ah, gosh (blush) ... you're right. I don't have a Portfolio. Very nice machine, but I need a keyboard large enough for touch typing.

However, I do have this great little hard drive which works great on my Sharp MZ-100 DOS laptop and whose manual SAYS it works on the Atari Portfolio, too. And I *did* hook it up to a Portfolio via Atari's $49 parallel interface attachment for the Portfolio.

Damark Clearance

They seemed happy together, but I did NOT mess with them further because I was just shooting this issue's cover and didn't want to goof up the configuration that definitely enhances my MZ-100 laptop.

Once again, it was Damark to the rescue and Tim Fullerton, a fellow member of the Woodbridge Atari Computer Users Group, to reinforce my tendency to buy. You will recall that, in the last issue of *Current Notes*, I lauded my MZ-100 as an excellent DOS compatibility choice. But I lamented its lack of any hard drive capability. Then came a Damark catalogue talking about an International Computer Products 20MB external hard disk drive that will fit ANY IBM-compatible computer because it attaches via the parallel port normally used for printing. No special hard disk connection is required!

Parallel Not Blocked

It sounded good, but I was too busy to check it out. Then I talked with Fullerton, who by coincidence bought a Sharp laptop from Damark about the same time last year as I did. After recently also buying the portable hard drive, he testified it worked fine on the MZ-100. No further endorsement was needed. I ordered mine that night from Damark's 800 number (1-800-729-9000).

The portable hard drive arrived via Federal Express within the week. And it works ter rifically—makes the MZ-100 a much better machine, as any hard drive improves any previously floppy drive exclusive computer.

What about blocking the parallel port from your printer? No problem—the external hard drive has a second port to link the printer while the hard drive is attached to your computer. Very slick.

I've loaded 10 megabytes of programs that all work smoothly. No more incessant disk swapping. However, there was a slight problem installing the disk because the one software installation disk apparently did not transfer enough of my existing CONFIG.SYS file to go with the lead line needed to let the laptop know it now had a hard drive attached in spite of itself.

Into EDLINE

I consulted my son-in-law DOS expert, who led me through the dreaded EDLINE procedure where I was able to type the FILES=10 BATCH=10 lines the software required before the hard drive would run properly.

After that isolated aggravation, it has been pure joy to have an external hard drive for a computer that otherwise lacked all hard drive capability.

As for battery duration, Fullerton brought his MZ-100 and portable hard drive to the last WACUG meeting where they worked fine on battery for an hour or so. The portable hard drive has its own rechargeable battery. I don't know how long it lasts because I haven't needed to run it yet on battery.

The Sharp laptop has run about five hours before needing to be recharged. The hard disk, like the laptop screen, has a variable time setting so it can rest between use on battery, but if some programs have trouble, you can just set it to 0 so the hard drive runs constantly (and drains its charge faster).

Portfolio Advice

The 10-page hard drive manual has a few special words for the Atari Portfolio and the Poqet PC. For the Portfolio, it cautions, "The Atari Smart Parallel Interface does not have the same drive capability as an ordinary parallel port. If you have persistent data errors, use a 'gender changer' instead of the 3-foot cable provided with the Flashdrive. This will allow the hard drive to 'dock' directly into the Portfolio."

It doesn't sound major, does it? Best of all, you can't lose by trying: if not completely satisfied, Damark allows you to return merchandise within 30 days for refund or exchange excluding shipping and handling charges.

To order by phone, have your major credit card ready and call Damark at 1-800-729-9000. Ask for the 20MB External Hard Drive by International Computer Products on page 12 of the March catalogue, Item No.

B-486-196554, $299.99 plus $6.50 shipping and handling. Manufacturer's suggested retail price is listed as $599.

23 MS Speed

The description says the driver requires only 2.8k RAM and that the drive can be disconnected to remove data from the workplace for security. The package includes an AC adapter and cable for easy connection to any parallel port. Factory new, with battery and case included, average access time is 23 ms. This hard drive does not require an expansion slot.

That about says it all. I have neither the time nor the inclination to put this through elaborate verification tests. For a casual computerist like me, it is more than enough that the external hard drive seems to work great for my needs.

Most of all, this is a *clearance* catalog. If you're interested, grab that phone right now and get one before this portable hard drive is sold out. If it doesn't meet your needs, return it within 30 days.

After all, my Sharp MZ-100 was a Damark bargain. It sold out soon, and it has been a trusty workhorse for me for more than a year now. I'm looking forward to similar success with the International Computer Products external hard drive improvement.

■■■■■■■

The Fire Within

by: David Small, Copyright 1992,

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Do you remember it happening to you?

I sure do. I could never forget.

This is a very hard thing for me talk about, because it is so personal and so very deep within me. A lot of "David Small" is built around this. But I'm going ahead anyway, because of something that happened a long time ago ... and pretty recently.

Back a few years to '72 or so.

I'd sat though a movie in the 8th grade, called "The Andromeda Strain." A submarine-warfare movie called "Silent Running" was second billed; it started.

To my surprise, here the movie started, and was going through scenes of some guy in a robe walking through plants and other people casually razzing him about his dedication to saving plants. *What?* This is a "sub war" movie? You know the kind--gritty officers, depth charges, torpedoes screeeeeing by, "Hunt for Red October," "The Enemy Below," "Das Boot" stuff ...

Then the main character gathers vegetables from his garden, and goes to the kitchen. He (Bruce Dern) puts his vegetables down in the kitchen and starts washing them, and opens the window to look outside. The metal plating outside the window (huh?) slides down slowly, and the outside is black, with many bright stars.

The view switches to looking in on this same kitchen scene, and pulls back slowly ... at which point the music starts, and oh my Lord he's in a ... *Starship*, of which the kitchen window is just one of many and in huge geodesic domes *there* are the plants he was walking through and they're orbiting Saturn look at those rings.

Throughout me rushed a feeling I had never known before, a trembling, tingling excitement that *shook* me to the depths of my soul, rushed about, and changed me forever. I had never felt anything like it before.

After a couple of minutes of showing us the huge ship, which made the spaceship in "2001" look like tiddlywinks, the view returned to the kitchen and to the plot, and I discovered I hadn't been breathing the entire time and my hands *hurt* where I'd held on to the seat; and my Lord, this is what I want most of my life, that I would give anything for. To go there. To look back at Earth, the sun bouncing off the incredible oceans, the USA impossibly high in the northern half.

For the first and only time in my life I knew what I was *for.*

Do you remember, my reader? Ever had something shake you that hard, let you *know* what you wanted to do, what you were *for* ? Are you lucky enough to be *working* at what moves you, at what is your fire within?

Or have you dismissed it as a "kid's dream" and are now passing your life by doing something that doesn't turn you on, makes you feel bored with the thought of even getting up out of bed ...

Because I found out last autumn that *I had forgotten that fire*, and it nearly tore me apart. I am glad to be writing this because I could not speak these words; it chokes me up too much. In fact, I have delayed writing this until I could get *some* perspective on it all, many months.

"What happened?" you ask. I mean, Dave writes fun stuff usually, sometimes crusades a bit, tries to inform. Him, getting shook that bad?

HackerCon 7.0

Every autumn for the last six years I have had the privilege of attending something called The Hacker's Conference. It's an invite-only thing where a couple hundred people who are considered "computer industry leaders" get together for a couple of days at a remote retreat and intermix, and I tell you, "intermix" is the perfect, proper word; it's like mixing matter and anti-matter. The results are powerful beyond expectation. (As I recall, Star Trek calls their Warp Drive's engine an "intermix").

Oh, sure, there's Panel Discussions and whatnot. But mostly it is one on one with people you usually only read about in magazines. I've met people like John Draper (phone genius) and Todd Rundgren (musician) and Ed Rotberg (remember Battlezone?) and Nolan Bushnell (founded Atari) and Jay Miner (who designed the Atari 8-bit chipset and the Amiga) and Jimmy Hotz (object oriented music) and people like that. All *sorts* of business cards get exchanged, quietly, and more than a few things have happened because of this get-together, a place where no one has to worry about the press. (I am very discreet about what I write about Hackers!)

I think I can tell you that Tom Hudson, who wrote the beautiful *CAD-3D*(tm) and *Degas*(tm) for us, got a standing ovation for the animation he did; he has written some awesome *Studio-3D*(tm) software for *AutoCAD* (with Gary Yost and Jack Powell, ex of *ANTIC* publishing...) for the IBM world.

Dave and the F.B.I.

And look, Hackers Conference is serious, not just a weekend of nose-picking. People, I had to go talk to the F.B.I. about Hackers 5.0, because some dweeb told F.B.I. that whoever stole Apple's ROM source code--the "NuPrometheus League" of a few years back--why, they just HAD to be at the Hacker's Conference.

In fact, everyone outside the Bay Area who attended Hackers 5.0 was called on by F.B.I.

Believe me truly: having your answering machine tell you to call back the F.B.I. about them coming to visit and talk is scary. So I went in and talked to 'em.

I think I was something of a shock to the F.B.I., honestly. Look, sure, it is a frightening thing. But I was friendly, explained precisely what "Hackers" meant in this context: "People who push the envelope," like test pilots do, great programmers and industry leaders, and casually mentioned a few people also at the conference who are Real Respectable (they had an attendance list anyway; I wasn't turning anyone in). I showed the F.B.I. what REAL bad anarchist bulletin boards had on them ("Kitchen Improvised Plastic Explosives"), my research into Pirate Boards that was the basis for some *Current Notes* articles a few years ago (Summer), and left them a printout of pirate boards and their "warez," to *please shut down.* In turn, they told me the realities of staff shortages on going after pirates and the dollar value involved before they could involved. We talked for hours.

As far as I know, after collating reports, the F.B.I. concluded that interviewing the Hacker's Conference people was a lot like hassling the engine that makes the computer industry go, and let it go as a bad tip. (And I feel certain it *was* a bad tip.)

There was, however, a furious storm of activity among hackers because of this and "Operation Sun Devil," a horrific thing that the press reported as a crackdown on computer criminals, but was really done indiscriminately and poorly, sometimes illegally. (The press couldn't be bothered to report *that* part.)

In one notorious case, the Secret Service raided the offices of a *game* company (Steve Jackson Games) who produced a role-playing *game*, about "Cyberpunking," set in about 2100 A.D., and damned near destroyed the business; the Service kept the equipment (their word processors, .etc) for a long time. The rationale? The *game* manual explained that as part of the game, you had to break into computers. You did so by rolling dice; a "1" got you in, everything else was a lose. Yes sir, I can tell you that I get into computer systems all the time by rolling dice. (Riiiiight. People, I know ways into computers that would chill the bones of some computer manufacturers, but none of them involve dice--nor me.)

And frightening for *all* of us, they went in with, get this, an *unsigned* search warrant, early in the morning, with rifles and shotguns, lining up a *game company's* employees against the wall, while confiscating anything in sight. I wonder if they got the dice.

That's a direct violation of the Fourth Amendment in the Bill of Rights.

When the Hacker's group heard about this, they went *ballistic.* Messages flew on electronic networks. One David Small called into The Well and said, "Help! The FBI wants to interview me about Hackers 5—what on earth?!?" ... and found out, much to my relief, what was going on. And *now* there is an "Electronic Frontier Foundation," partly because of the wave of F.B.I. interviews I was caught up in, to help preserve civil rights of people online. The EFF, which Mitch Kapor helped found (he wrote *Lotus 1-2-3,* you might recall) helped with Steve Jackson's case and other cases; otherwise, the sheer legal fees would have destroyed Steve, whom I met at Hackers 6 and who is a good guy.

(EFF: 155 Second Street, Cambridge, MA 02141. (617) 864-1550, FAX: (617) 864-0886, InterNet: eff·eff.org. This is a Good Cause, folks.)

Yeah, you should have heard people talking about their F.B.I. interviews at Hackers ... about half the group. Jerry Pournelle, who is about as far to the right politically as is possible, was furious over the civil rights violations, and gave the Secret Service agent who dreamed this snafu up his "Onion of the year" award in *Byte* magazine...

But I regret to tell you some people were frightened away from
attending ever again.

Back to Hackers

Well, one of the features of the Hacker's Conference is the munchies counter, where every Hacker munchie is offered, Jolt Cola to junk food. So I was standing at the potato chip bowl, getting some avocado dip (see how clearly this is imprinted in my mind?), and I looked at the name badge of the quiet man with the light beard standing across the table from me, who had that look of a person who was a first-timer at Hackers, kind of "taking it all in." (It's a shock, but after awhile, they dive in and it gets real fun!)

And my eyes drifted to his badge, and it said,

Gary C. Hudson
Pacific American Launch Systems

And oh my dear heavens, *I know that name.*

And what I had lost so long ago, from the time I was 13 and in the 8th grade, what I had forgotten,

came rushing back to me, for people, in the real world, this is *the* Rocket Man.

I didn't trust myself to speak, for I had just met one of the greatest heroes that there is, and the dreams I had forgotten had come back and I felt alive again in a way I had forgotten...

Maybe I'd better explain, huh?

A Little History of NASA

In the early 1960's, an organization was formed, called NASA, to bring together the various space exploration efforts the Air Force (primarily—you know, X-15) and other organizations were doing. John F Kennedy tasked NASA with the job of landing a man on the moon by the end of the 1960's.

NASA was a government agency and did not appreciate that a heck of a lot. Again, let me explain. Having worked for several government contractors and with friends in government places, I can tell you the goal of NASA isn't landing people on the moon--it is for NASA to have a job next year. This means, drag things out.

Oh, look, they are correct in terms of government contracting. After July 1969, after we got to the moon, and the excitement was over, NASA did indeed lose *many* jobs due to short-sighted funding cuts, pioneered by that idiot "Senator" William Proxmire.

I'm sorry to say it that way, for I lived and dreamed NASA in the 1960's, too, getting up at 4 a.m. to watch the launches of Gemini and Apollo, the thrill of the launch and the rocket climbing past the gantry saying "United States," watching Neil Armstrong on the moon and Jack Swigert in Apollo 13 struggling to stay alive when their oxygen supply blew up, seeing Deke Slayton finally make it there ...

... and going to see a man-rated, ready-to-go Saturn-V, the *most powerful engine ever built*, that NASA had flopped on its side in Houston for tourists to gawk at, and the interminable '70s and '80s, when Skylab barely worked and later fell down when NASA wouldn't sustain its orbit, when we stopped going to the moon, where the Hubble scope wasn't pre-checked (*oh, come on*!), and, by golly, failed ...

... and where the present day, 1960's and early 1970's technology Space Shuttle started its present sputtering program, and *where people died.* Last year before WAACE we toured Arlington Cemetery where the graves of some of the Shuttle astronauts are and shed tears with many other people.

I no longer believe in NASA. Folks, I will never make it into orbit, never go where I am supposed to go, if I rely on NASA. Look at their track record! (And you think Atari has problems).

NASA and Morton Thiokol *overrode* the engineer's warnings, *the people who knew*, about minimum launch temperature for O-rings, in favor of hustling up the launch for essentially political reasons; golly, that teacher might be a day late for her nationwide classroom, and they sent up the Challenger anyway to explode.

For heaven's sakes, a few launches before, the solid rockets nearly burned through—came within ten seconds; the Shuttle had lost main engines going up; and NASA ignored all that!

They locked Gus Grissom and two others into a *pure oxygen*-filled Apollo 1 capsule (inexcusable) with bad wiring and three good men burned to death when something shorted and burned, and they could not get out because the hatch took 30 minutes to unscrew. NASA has pulled other hair-raising screwups. Some have been saved only by the grace of quick-thinking test-pilots on the spot and heroic ground crews, like Apollo-13, when the crew incredibly survived the explosion of their main oxygen supply, half way to the Moon, due to a contractor screwup NASA did not catch ... and people, Apollo 11, first on the moon, *only landed* because Neil Armstrong, a test pilot for years, looked down at the last few seconds, saw the landing site the computer was taking them to was filled full of huge boulders, and overrode the computer.

The Presidential Inquiry on the Challenger found many places where the Shuttle engineering was questionable, where budget or politics won out over the laws of physics and plain common sense. The tires blew out continually on landing. The brakes were questionable. The turbo-pumps that drove the main engine were on the borderline. *There was no way for the crew to eject.*

It is very painful for me to tell you what has been quietly not mentioned: the Challenger crew lived for a time after the explosion; at least one crew member got on the emergency oxygen mask, and they rode that capsule down into the ocean, in tumbling hell, and died underwater.

Remember the Saturn Five, the most powerful engine ever made by mankind? It lifted a heavy payload to the *moon*! Well, NASA *lost*, I kid you not, the documentation on how to *start*—the absolutely critical information on multiple engine sequence firing times that makes the difference between a clean launch and a fireball.

The most powerful nation in the world doesn't know how to light off a Saturn anymore. Cynical long-time NASA workers I am friends with said the documentation was thrown out to pave the way for the Shuttle; i.e., "no going back."

People, the Shuttle uses *core memory* in its three primary computers. Remember that junk? You can find it in museums if you try, or in 1950's movies with computers and Robbie the Robot. It stores one bit in a small ring of iron and was accepted computer storage before we got what we modern-age computer people call "RAM" in big quantities. (Get this: they use three computers in the event one fails. A very

small computer selects the decision made by two over one if they ever disagree.) I am *amazed* that IBM even supports that old a computer.

Space Station Freedom? My best friend from college is busy watching the space station being slowly cancelled, bit by bit. The Mars mission is going with it, down the tubes. Quite honestly, if we had any brains at all we would BUY the Russian Space Station Mir, which is *still* manned and *still* orbiting above us *right now.* At least it works. If you haven't gotten the picture by now, my problem is with NASA management, not the fine engineers who made spectacular accomplishments in spite of their bosses.

In fact, Russian astronauts touring the USA looked over some of the plans for the Freedom and pointed out mistakes they had learned from hard experience ... such as, sliding panels don't. They stick.

Now perhaps you understand why I have lost faith in NASA, and why I hold my breath every time they launch a Shuttle.

And I think it's gonna be a long, long time ...

–Rocket Man,
Elton John & Bernie Taupin

Gary's Efforts

And there, standing across from me, was a man who has spent 20 years trying his damndest to get into space *on his own.* He's a very qualified engineer, consultant to numerous aerospace outfits, and he had done what to me qualifies as a Hacker: He Had Actually Tried It! By God, *you are not a hacker until* you type "GO" and see what happens, win or lose. And as people who have visited Gadgets know, it doesn't matter if you lose; you often do. You try again. You only overcome the impossible that way. (We have a saying here: "So what? What's it going to do, *fail?* Big deal."

He has come so agonizingly close ...

Gary Hudson *lost* a rocket that he had put his heart and soul (and 25 other people he managed) into building. During engine tests, it had a "hard start," where the fuel doesn't ignite instantly, accumulates, and *explodes,* and it blew up. The pieces of shrapnel left were less than two feet across, he said. (Ask NASA about hard starts, about how many rockets they lost before daring to send up anything alive. People who remember Sputnik and the 1950's know well the quote, "Ours always blow up!.")

I have never had something that heartbreaking. It's like crashing a program during test and losing all your code at the same time.

And then Gary had to go on Nightline and have Ted Koppel ask him about the status of private launch outfits. People, Ted Koppel makes the F.B.I. interview I had look tame. Talk about a baptism by fire!

He tried, and he kept trying. He designed the "Phoenix" crafts, which are sane, 1980-1990's technology, *re-usable* launch craft that can go up to orbit and down to the Earth as many times as you want ... and discovered what I just said about NASA when he told them about it. Zero interest. Phoenix is called an SSTO (Single Stage To Orbit) design, because it doesn't throw away multiple stages each launch ... in effect, land, fill 'er up, and go back up. (A little more complex, but you get the idea.) Oddly enough, Phoenix doesn't cost the zillions that the Shuttle does, and Gary isn't particularly concerned that he might work himself out of a job. Definitely not a NASA project. And you can damned well bet there is no 1950's core memory on the Phoenix.

Rocket Man... out there alone ...

–Rocket Man,
Elton John & Bernie Taupin

Gary and a few others ... Phil Bono for instance ... kept alive, nearly alone, a dream through many lonely years, the 70's and 80's, when no one but a few would listen. Oh, the knowledgeable writers knew of Gary Hudson. Jerry Pournelle, who worked at NASA for years, dedicated a book to him, and later had Gary play a cameo (and important) role with a Phoenix rocket in the book "Fallen Angels," which you can find at B. Daltons or Waldenbooks right now. Strongly recommended reading; it is very timely, as it deals with the Greenhouse effect--and how we might be doing just exactly the wrong thing.

Hackers 7.0

7 is supposed to be a lucky number. It was for me.

I remembered why I was alive. I had forgotten for 20 years. So, I finally screwed up my courage and struck up a conversation with him, and he was a very pleasant, nice guy! He had eyes I have only seen in Sandy's Dad before, test-pilot eyes (Sandy's Dad flew the YF-12 and SR-71 Blackbirds; Sandy grew up at the legendary Edwards Air Force Base. Her dad helped test the thing out, which means he was one of the people that pushed it to the edge to find out where the edge was. With the fastest plane in the world, and the world's altitude record, this is not trivial. We dedicated the 68030 SST to him.).

Gary? Look in his eyes. This is not a man that is going to be stopped; he reminds me of a force of nature.

Our talk lasted and lasted, and inside me the "fire within" grew and grew. Other people joined in, mostly space enthusiasts, tossing ideas in about how they could help. By God I wanted to contribute, to let people know there *was* another way into space, that "Space is the place." Conversation lasted through dinner and afterwards well into the evening, on what some hackers could do to help. (We did take the occasional

break for a flight simulator on a Silicon Graphics Iris Indigo ... people, you have to *see* that.)

Sure, I know, hubris, thinking that some hacker geeks could help with a rocket effort.

But ... some of these same hackers created the micro industry. Quite honestly, if *anyone* can do it, it is they.

Why bother?

Space

A lot of people are under the illusion that the space program is a waste of time, that all we did was "get some rocks from the moon." That's because no one ever explained what it did for us. NASA's public relations department is lower profile than Atari's ... and there are many people who would like to take the trivial NASA budget and add it to their personal empire. (See: Proxmire.)

Nylon? Ya like panty hose or fishline? Velcro? You use those? *Direct* offshoots from the R&D of the space program. Satellites, and the hurricane weather predications that have saved hundreds of thousands of lives, the nightly cloud pictures you're accustomed to--space program. Did you know *right now* you can buy a rescue beacon that satellites will pick up anywhere on Earth, and relay a message to a rescue team? Or a GPS system that will show you your position within a few feet anywhere on Earth? You can forget getting lost. (GPS units were heavily used in Desert Storm.)

Space-based cameras photographing the Earth show resources we can use, and kept the peace while "they" were the Soviets; the KeyHole KH-11 satellites kept an eye reportedly so good it could read license plates on Soviet activity, be it the laser "Star Wars" activity at Dushanbe, the Soviet missile silos, or the massive underground command posts dug for the leadership in the event of nuclear war. During the 1970's Israeli-Egyptian war a satellite pass was absolutely critical to keeping the truce; it showed exact troop positions, and helped us persuade one side to not violate treaty lines.

I can make a very good case that satellite observance is one reason we all survived the arms race.

I call that worthwhile.

Green Space

I could rattle on for hours about the benefits of space, but the primary one is this: If you care about our ecology, our environment, then you simply must support the space program. It is the only hope for cleaning up the Earth and keeping it that way. (*But NASA isn't our only shot at space.*)

For example, power, energy, which we *must* have in our economy.

If we orbited the SPS (Solar Power Satellites) and let them collect undiluted sunpower, with no atmosphere in the way, then beam the power to Earth, which is 1970's technology we could do *today* if we had the will, we could shut down the power sources of "your choice" that are controversial--the "acid rain" coal burning power stations, or the nuclear reactors busily making stuff that will stay deadly for 250,000 years, that we can't think of a place to bury. This idea is so old and has been engineered to the last detail so many times it's amazing we haven't done anything about it.

With more energy (which is the essential ingredient), we can clean up polluted areas, and not *need* to create more pollution. Generally, pollution is the result of using a process that requires less energy and thus less cost. Well, sunlight is *free*; how much you need?

The ozone layer is breaking down so fast from CFC's that it will be a problem here in the USA immediately, according to TIME magazine; we can't just feel sorry for the Australians. Yet things can be done to help, with ground to orbit capability.

And there are neat things that can be done in zero gravity, from incredibly strong wires called "monofilaments" to possibilities in medicine to perfect ball bearings (which are already in use!), but which have been on hold, waiting for a Shuttle ride that is terribly backlogged.

SDIO / Delta Clipper

Now here's something you might find ironic. Remember all the brouhaha about "Star Wars?" Well, now things have changed; the SDIO office has to worry more about a single nut-based nuke missile than about thousands from the former Soviets. And *that* is a practical, achievable, and very moral goal. If you don't know, right now there isn't a thing we can do to an incoming nuclear missile other than duck; that is what SDI is all about.

(Interesting sideline on just how much the media doesn't tell you. Did you know who spearheaded the move to make the Patriot ground to air anti-missile program into an anti-missile, rather than anti-aircraft, project? The Patriot, as you recall, saved a lot of lives shooting down incoming SCUD missiles during the Iraq war. It was Dan Quayle, back then a Senator. Which to me says that just because someone can't speak in public doesn't mean he's stupid; we've forgotten that.)

You know who wants a re-usable, ground-to-orbit vehicle? The one that might just put us in space and let us access some miraculous things for Earth? NASA? Chuckle. Nope. SDIO. Yes, those "evil, warmonger" Star Wars people. One and the same.

In fact, SDIO has put $58 million hard cash down on a design, the McDonnell-Douglas "DC-X Delta Clipper," which to me looks *incredibly* like a Phoenix. Guys like Gary Hudson worked out the math years ago ... how many engines, assuming a few go out, to still be safe ... center of gravity ... nozzle size ... and

whatnot. It's an RL-10 engine based design; the RL-10 is about as safe as an engine can get, with a terrific safety record. I just read about it in Aviation Week & Space Technology, which has a "10" rating in reporting accuracy.

We are talking reality. First test flight April 1993. *One year from now.* Orbital flights summer 1996. It is not a hope, it is solid and it is happening.

DC/X Delta Clipper uses existing technology, which any software person ought to appreciate (new stuff is a bear to debug), and is like my dream finally, finally coming true.

And Gary Hudson?

Here what I am sending to *Current Notes* gets one massive deletion, alas. Gary was good enough to tell me his current project and give me literature on it, on condition I not talk until he unveiled it. That's a deal.

I will say that people like Gary Hudson, like any true hacker, are never, *ever* out to be counted out. Big companies come up with things like OS/2. Little companies come up with things like Spectre GCR. You tell me which works better.

You *will* be hearing about what he's up to, win or lose. I guarantee it. In the meantime, he's already won, because SDIO is funding a design that looks incredibly familiar to people who have seen Phoenix plans. I wish they'd gone with Gary to build it instead of McDonnell, because I have a suspicion that the government likes dealing with "known contractors" and tilted that way, but it just might not matter.

When I can write more, I will. This is the most thrilling thing I have ever encountered in my life, and it means more to me than I can type into this word processor.

Conclusion

And finally ... I perceive the USA as inward-turning, as losing our edge, as dissolving into various groups only self-interested, instead of a multicultural ethic pulling together. Japan Inc. is the classic example of our competition. Yet there is a place where we excel, namely space technology and getting people up there. We are within a year of starting on the road back to the next frontier!

Space is the place where that can change. It can provide the resources we so desperately need (look, we are *going* to run out of oil sooner or later, looks like sooner), and space is so new that the many present spinoffs are the tip of the iceberg of what we'll get.

Gary has fought a 20-year battle to get us back to space, and it is looking good. If ever a person deserved to be called a hero, it's him; without his consistent pressing for a re-usable SSTO, there probably wouldn't BE a Delta Clipper being built.

Test flights, one year.

I'm fully aware that this isn't centered on the Atari world ... yet it *is* centered on the Hacker world, and it affects us all. I thought you might enjoy a glimpse into the future, and a glimpse into what makes an Atari hacker tick.

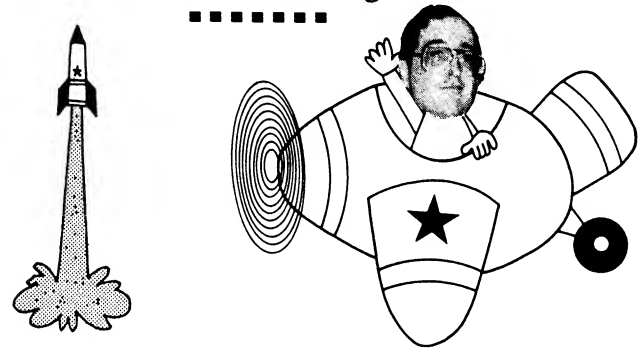
I am available to help pilot, test, whatever, anytime, anywhere. You see, it is what I want to do the absolute most. And bless Gary Hudson for reminding me.

I can be contacted at:

Gadgets by Small:
FAX: (303) 791-6098
Genie: DAVESMALL
Compuserve: 76606,666
InterNet/USENET:
dsmall@well.sf.ca.us
Wife: "Hey, you!"

I will leave you with one thought that makes my entire week:

Gary Hudson *owns* an RL-10 engine.



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Items Are Listed In No Particular Order.

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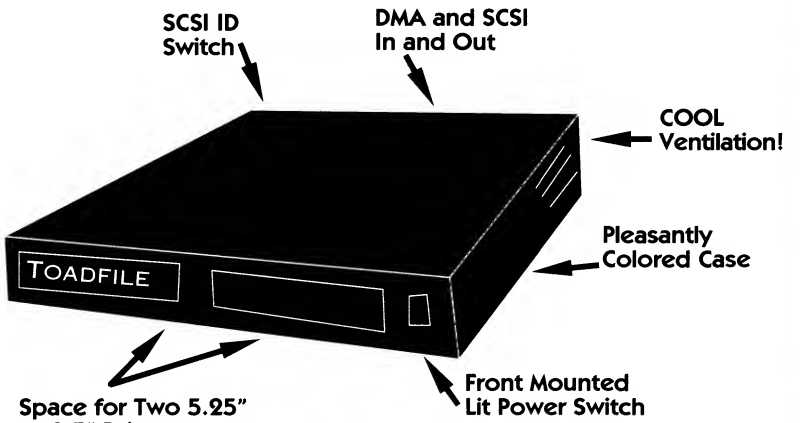

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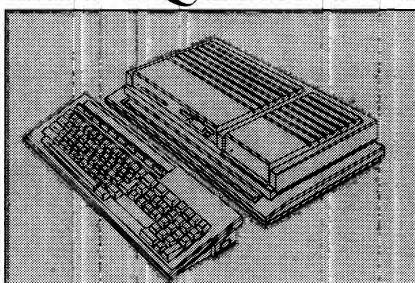

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Planning to Avoid Computer Insecurity

Part III: Backup Software

by John Barnes

When most Atari users think about avoiding computer insecurity, the first question they ask is, "What backup software should I use?" The first two articles in this series have been an attempt to get people thinking about their computer insecurity in broader terms, but it is finally time to turn to the backup software issue.

The best backup software is designed to help the user avoid the "Any backup that is too much of a hassle doesn't get done" trap. This article describes three products that I have evaluated for their ability to reduce the hassle of doing backups while, at the same time, making it easy to restore backed-up files and track the contents of a backup collection.

This article does not attempt to cover all of the backup products in the marketplace. I have tracked the three products described here over the last three years. During the same time, I have evaluated many others. These three have stood the test of time. Nonetheless, the following caveat is necessary: "The author and *Current Notes* magazine accept no responsibility whatever for damage or loss to the user's data as a consequence of any statement made in this article."

Given the large variety of ST computer configurations that are out in the field, and given the multitude of other factors that may interfere with the operation of the software described in this article, the prudent user will take extra precautions whenever embarking on any new practice. In particular, any reader who chooses to install one or more of these products on his system should first make sure that data of any value is backed up by using TOS's built-in copy procedures. These programs are designed to make backups convenient, but they are by no means foolproof.

Also, don't wait until it is time to restore lost files before trying out the restore features. Let the bugs crop up while you are prepared for them. An educated paranoia is the most important security tool of all.

The Programs

The three programs that I selected for evaluation are *TAPE.PRG, GOOD Backup,* and *Diamond Back II.* They are all payware. My search for a PD program that would perform to my expectations was fruitless.

TAPE comes with FAST Tape Backup units sold by ICD through Atari dealers everywhere. In fact, the program is useless without such a drive because it checks to make sure that the hardware is present before allowing the user to do anything. Tape drive users who do not have a version above 2.0 of this software should contact ICD for un update. The advances are extremely significant.

The *GOOD Backup,* written by Jeff Lomicka of tid bit Software Engineering, is a straightforward TOS application. It is rather utilitarian, but extremely functional. *GOOD* is unique in its ability to make any collection of files on a hard drive or a bunch of floppies into a backup save set by registering the names of the files in a special database. This can be very useful in automating a procedure to load files from a group of floppies onto a hard drive or in verifying that all files in a given subset of folders on a hard drive are, indeed, contained on a certain group of floppies.

Diamond Back II is an offering from Bob Luneskii trading as Oregon Research Associates. *DBII* sports a GEM interface, which will render it more attractive to many users. *DBII* also comes with two nice utilities named *DFORMAT* and *DFIND.* The former is a flexible disk formatter that allows Atari users to format disks to a range of formats including Apple File Exchange. MS-DOS users may also find *DFORMAT*'s disks more readable than those produced by some other formatting tools. *DFIND* is a very nice utility that scans disk partitions for file names that match a selected pattern. A quick glance at the list in Table 1 shows that *DiamondBack* is extremely flexible, which allows it to meet a greater range of needs than the other two products.

The overall objective of all three programs is to allow the user to copy a subset (which may include the entire partition) of files in a hard drive partition onto another medium and, in the event that the original hard drive partition is obliterated, to restore the files that were present at the time of the backup to a replacement hard drive partition as if they had been there all the time, period.

The Features

The table on page 43 lists most of the key aspects that I have found in the three programs. Let me explain each.

Media Support

The TAPE program does not copy to floppies. It does not make sense for it to do so. It will, however, copy files from one hard drive partition to another and it does this very rapidly. *GOOD* and *DBII* cannot deal with tape. They can, however, deal with floppies, and one or the other of them is indispensable for this purpose. *GOOD* and *DBII* can also use hard drive partitions to store their save sets. The ability to copy from one hard drive partition to another is most useful when the second partition is on a removable cartridge. The backed up files can then be stored away from the computer in a safe place and another cartridge can be placed in the drive to receive more files, thus allowing rapid backup of hundreds of megabytes of files. The removable disk cartridge is a significant advance for security-conscious computer users.

TAPE and *DBII* both use well-designed GEM interfaces to aid the user in selecting all of the parameters that have to be set before starting a backup. Unfortunately, this means that every entry in a list must be pointed at and clicked on. This is not so bad in the case of *TAPE*, where entire drive partitions or large collections of folders are involved, because the item selector allows for rubber-banding and shift-clicking to build the list of folders and files to be backed up. The necessity in *DiamondBack* of flipping between two dialogue boxes to add a new folder to the list is rather annoying, but this is my only serious quibble with the program.

The *GOOD* backup, using simple VT52 screen controls, allows inline editing of selections, with support for wildcarding in lists of files to be included or excluded from the backup. *GOOD* does not allow an inclusion list and an exclusion list to be operational at the same time and *TAPE* does not provide for an exclusion list at all in event that the user does not want to back up wads of, say, font files.

Online Help

TAPE provides rather limited online help in the form of explanations of some features. This is not a serious lack because the operation of the program is pretty intuitive. *DBII* provides help buttons in various places that explain specific features. A simple touch of the [HELP] key while running *GOOD* will bring forth an explanation of the selection that the screen cursor is sitting on.

Full vs Incremental Backups

A "Full" backup is obtained when all of the files that meet the selection criteria are backed up onto an empty piece of storage medium. This is really the only mode that *TAPE* supports, and it does not store the user's selection criteria for use in an "incremental" backup, which adds and subtracts changed files from the save set while leaving files that have not

Table: Features of HD Backup Programs

Program	TAPE	GOOD	Diamond Back
Version Tested	2.24	1.11	2.42
Feature			
Media Supported	Tape, HD	HD, Floppy	HD, Floppy
User Interface	GEM	TOS	GEM
Online Help	No	Yes	Yes
Backup Types			
Full	Yes	Yes	Yes
Alterations	No	Yes	Yes
Archive Bit	No	No	Opt
Checksum	No	Opt	Opt
Image Backups	Opt	No	Opt
Spectre Parts	Image	No	Yes
Saveset Types			
Open	No	Yes	Opt
Closed	Yes	No	Opt
Compressed	N/A	No	Opt
Encrypted	No	No	Opt
Archive List	Opt	Yes	Opt
Multiple Parts.	Yes	No	Yes
Scripting	Yes	No	No
Error Sensitivity	Extreme	Moderate	Unknown
Pausing	No	Yes	No
File Splits	N/A	If Needed	Opt
Path Grouping	N/A	Poor	Good
Test Times	[1]		
Test 1	1:00 7:02 [2] 2:10 [3]	8:06	2:52
Test 2	1:00	26:00	23:30
Test 3	0:40	6:43	6:30
Street Price	W. ICD Fast Tape Unit ca $800	$19	$39

Notes:

[1] Times for TAPE do not include tape positioning times, which can be considerable and will vary from one use to another.

[2] "Optimization" on, allows restoration to different logical sector size.

[3] Optimization off - files must be restored to disk with same sector size.

Test Descriptions:

Test 1 - 8.486 MB hard drive partition from fixed drive to be backed up to HD partition (on Syquest 44 removable disk) or Tape. Checksum validation and history list used where available. File copy accuracy validated using against GOOD checksum and history file.

Test 2 - 3.3 MB from a series of folders on a hard drive partition written to floppies. Backup program formats every floppy. Checksum verification is enabled in both GOOD abd DBII.

Test 3 - Files from Test2 deleted from HD and then restored from save sets

changed untouched. I have chosen the word "alterations" rather than "incremental" in Table 1 because neither *DBII* nor *GOOD* provide what I consider to be a true incremental backup capability as users of the Unix or VMS operating systems know the term.

The Archive Bit

GOOD and *TAPE* both ignore the "archive bit" that versions of TOS after 1.2 can set to indicate to an outside application that a changed file needs to be backed up. Some applications, most notably database applications, can alter a file without changing its size or its time stamp. I have experienced applications that do not deal with the archive bit properly, so I have tended to ignore it. Both *GOOD* and *DBII* allow me to do this because they can also use computed checksums to determine whether a file differs from its backup copy. This can be a little time-consuming because it involves reading every byte of files that may not need to be backed up in order to calculate the checksum.

Image Backups

I recommend against image backups of GEM and BGM partitions. When such a backup is used for restoring purposes, the disk partition must be of an identical size to the original and there can be no bad blocks. Spectre GCR users who wish to use tape are, however, forced to back up their partitions in image format. The temptation to use image backups to save time should be resisted as the risks far outweigh the benefits.

Open vs Closed Save Sets

"Open" save sets are collections of files from a backup that can be accessed directly by the usual TOS directory, copy, or move commands. "Closed" save sets require special software, usually the program that performed the backup in order to make sense of their contents. My rule is "avoid closed save sets whenever possible." The save sets produced by the ICD tape drive are about the only instance in which I tolerate closed save sets, and that is purely because the speed and convenience of this backup method outweigh the disadvantages by such a wide margin.

Compression and Encryption

I shun compressed and encrypted save sets for many of the same reasons. Floppy disks are so cheap that I find it foolish to save a few pennies, a few disks, and a little time by burying one's data in a form that may not allow it to be retrieved at a later time. Everyone has seen an ARC file that got corrupted in some way or another, obscuring its contents forever. A compressed or encrypted save set that contains a single bad block may represent a backup that was a total waste of time. For this reason all backups to floppy disks should be done with write verification enabled. Bad blocks have been known to crop up on disks that passed this test. Restore operations that encounter a bad block may cause the loss of a small number of files, but this may not be too tragic.

Archive Lists

Backup software should be capable of generating a list of the files in a save set. This was a serious lack in early versions of the *TAPE* program, and the fact that it has been remedied is a prime reason for those who have not yet upgraded to do so. In *GOOD* and *DBII*, the archive list is an integral part of the operation because it is needed for later use when backing up only those files that have been altered.

Multiple Partitions

The *TAPE* program handles multiple partitions very nicely. The user can check off as many partitions on his system as he has room for on the tape. Once the backup process is started, it just chugs along until it is complete or until it encounters any form of disk corruption.

For this reason it is important to run *CLEANUP* immediately before doing a *TAPE* backup. Little matters like crosslinked directory entries and bad blocks must be resolved before using the tape backup.

Scripting

Another nice feature of the newer versions of the *TAPE* program is a scripting function that allows the user to spell out a series of backup operations that can mix file and image backups in one continuous run. This is probably just the ticket for BBS sysops who really should back up the systems every day because of the many risks they face from the elements, wear and tear, and vandals. The command set for *TAPE's* scripting language could use a little enrichment, particulary by providing for generation of the list files at the end of a backup session. Scanning the entire tape to generate these files is very time-consuming. I would like to be able to do the whole business while I am asleep.

GOOD and *DBII* allow the user to reload parameters for a single backup, which greatly facilitates processes that are repeated regularly.

A scripting capability is not particularly meaningful for backups to floppy disks because we do not yet have robots to pop floppies in and out of the drives. The same holds true for removable hard drive cartridges. Perhaps when removable read/write optical drives come into common use, we will want scripting so that we can back up a whole collection of partitions from smaller drives onto these very roomy disc media.

Pausing

GOOD is also unique in its ability to stop the backup process at any point, save its archive list, and

pick up from that point at some later time. This can be very handy. This capability is not meaningful with tape backups, except between partitions. I am not sure whether *DBII* can be paused in this way or not.

File Splitting

This is needed for cases where a given file is too large to fit on one floppy disk. Examples include large databases, some image files, and some DTP documents. *GOOD* seems to try very hard to avoid splits. I found it best to turn this capability off in *DBII* because it was splitting up even rather small files for no good reason. It would be better to have some sort of threshold setting for the file size.

If split files are present in the save set, the user can only restore them by using the backup software that split them. It seems to me that anyone who deals with a lot of large files would prefer tape or a removable cartridge to floppy disks as an archival medium.

Path Grouping

GOOD, in its attempts to minimize the amount of free space on its floppy disk save sets, seems to outsmart itself. Pieces of folders can be scattered all over the disks in a modest sized save set, as I found out when I performed Test 2. *DBII* does a much more satisfactory job on this score.

Timing Tests

The series of tests reported in the table were designed to invoke the processes that I consider most fundamental. Because of my biases against compression, I did not make any attempt to optimize for speed. Other users may have different needs and it may be possible to change the times with some tuning.

Test 1 is simply a raw speed test for backing up an entire partition to another partition on the tape or a hard drive. On the first line all three programs write their backup save sets to an empty hard drive partition. It is obvious that the three developers use radically different methods to do this.

The tape writing process is obviously slower and depends on how one chooses to write the tape. I turn optimization on all of the time because my system has more than one logical partition size (newer, bigger drives seem to use 1024 bytes rather than 512 bytes as their logical sector size). This enables me to use the tape to move files onto or off of any partition on the system.

The similarity between *GOOD* and *DBII* in Test 2 is somewhat surprising. Perhaps I did the latter program an injustice by avoiding its special fast formatting mode. I may have also slowed things down by avoiding compression, but I have already given my reasons for that choice.

The similarities in restore times from floppies in Test 3 probably reflect the inherent speed of the floppy reads, since the disks are formatted the same for both programs. It is obvious that backups to hard drives or to tapes are far faster, and, therefore, more convenient. People who need to back up their data frequently should think seriously about investing in good hardware.

Street prices are given for reference purposes. The ICD Tape system is usually a special order item, but it may pay to shop around.

Conclusion

All of the products described above give reliable performance and they eliminate much of the click and drag tedium and all of the thinking that would be needed if the user tried to accomplish the same thing by trial and error using TOS copying between hard drive partitions and floppies.

A decent backup program is a "must have" for anyone who uses a hard drive with any regularity. Either *GOOD* or *DBII* will fill the bill for that need.

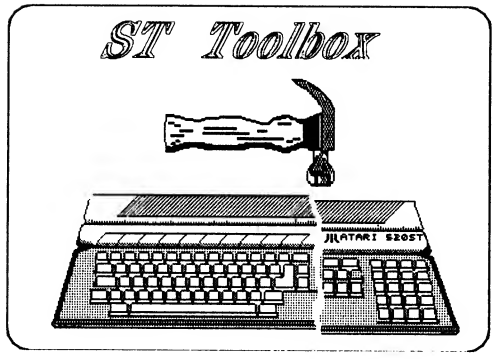
The last time I looked at this situation, in November of 1989, *GOOD* stood out head and shoulders above the rest for the clarity of its concept and the robustness of its operation. Bob Luneski has put a lot of work into making *DBII* into a robust, stable product with a lot of extra goodies. My own advice is to buy one of each. The lessons about backup integrity and the value of solid, simple design that can be learned from using both of these products are invaluable.

For those who have power needs--invest in the ICD tape drive if your time and your data have any value at all. This unit offers speed and convenience that the others simply cannot match. While I use removable cartridges as backup media in order to provide a measure of transportability and redundancy, I think of them primarily as a way to expand my disk storage capacity at a reasonable price.

Given the robustness and features of *GOOD* and *DBII*, I really do not see a way for anyone to add much to this arena. Of course, there will be a need for upgrades as new sizes of floppy drives, hard drives, and tapescome into the Atari community. If, however, someone would like to try something radical, I encourage them to strive to implement true incremental backups. Those who want to try their hand at this should study the way Digital Equipment Corporation does it in the Backup utility that is part of their VMS operating system.

The next (and, hopefully, the final) installment in this series will deal with the problem of tracking all of those files in all of those save sets.

■■■■■■■



Publisher 2 ST

A semi-power user perspective

by J. Andrzej Wrotniak

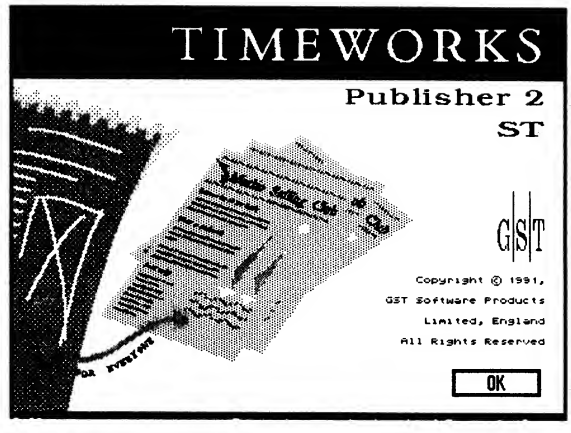
Yes, I know, there was a review of the new *Timeworks Publisher 2 ST* in the last issue of *Current Notes*. Still, I think it is a significant program in the ST world, and I would like to add some of my own remarks, taken from the point of view of a semi-power user, someone processing large documents with few, if any, fancy features and special effects.

By the way, what you are reading now has been published using the *Publisher 2*, with draft copies printed on a 24-pin Panasonic KX-P1124, and the final output on the Atari laser printer.

The Old Workhorse Improved

The original *Publisher ST* has been my desktop publishing program of choice. It is logically designed and easy to use. You could have it up and running half an hour after having opened the package. The user interface design was strongly influenced by *Ventura Publisher* from the PC-DOS world, but it was nicely structured, straightforward, and a pleasure to use.

The program is also better suited for large documents than any of its competitors on the ST. Each paragraph has a *style* attached to it (if not specified explicitly, it will default to "body text," in which this paragraph is formatted). Modifying a style would uniformly affect all paragraphs tagged with it. In a 200-page document this makes a difference: you do not have to redo all these paragraphs individually!



On the other hand, the *Publisher* had some irritating shortcomings. It was impossible to *export* text from it in order to re-use it in another application. Even more painful was the messy implementation of GDOS font loading: it was unreliable and required some tweaking before using the program with customized font sets.

These and other weak points of the program seemed quite easy to fix, and I was hoping to see an improved version within months from the original release. After the upgrade has been made available for the PC version, however, GST announced they were not too excited with the ST market, and put the whole thing on hold. The wait has been much longer than we expected.

The Competition

In the meantime, other DTP programs appeared on the ST market. Some of them were obvious dogs (like *Fleet Street Publisher*), some were quite clean and powerful. Still, in every case, after using a new program for awhile, I came back to the *Publisher*.

I found both *Calamus* and *PageStream* quite nice, and, with vector (as opposed to bit-mapped) fonts, their output quality can be better than *Publisher's*. They are great for short leaflets or advertisements. (Some of the ads in this issue of *CN* are generated with those programs, and the results are outstanding!)

Try, however, to use them for a 100-page program manual, with lots of adjustments and last-moment modifications. Without paragraph styles, the task, if not hopeless, is quite annoying and time-consuming.

Besides, memorizing those *hundreds* of icons in *Calamus* is a task beyond my mental capabilities--a good-looking nightmare of a user interface design, maybe a matter of taste, maybe OK for someone spending six hours every day with the program, but not for us mere mortals.

So back to the old faithful *Publisher* it was every time: its limitations could be lived with, its bugs were more irritating than critical, and it was doing the job all right. Most importantly, I did not have to change my way of life for it.

The P-day

Jennifer from *Toad Computers* sounded triumphant on the phone: it is here, come and get it! It was Saturday, and the guy in the hat, with a radar gun and his engine hood raised, was not at his usual spot at Route 3 (hint, hint!)--it took me no time to get to Severna Park.

The Toads were just moving to a new location across the street, and the place was even more easy-going (read: messier) than usual, but Jennifer

found the big box and took, a brave girl, my check for $150. Twenty minutes later my hard drives were spinning and I was running the installation program.

What's in a Name?

The program name may be a source of some confusion. Originally named *Publisher ST*, it was distributed here by Timeworks, and referred to as *Timeworks Publisher ST*, or sometimes just *Timeworks*.

The program became quite popular, and the GST people decided to use the recognized Timeworks name as the part of the name of the product (though Timeworks has nothing to do with it). The manual clearly states that *Timeworks Publisher* is a trademark of GST Software, while *Timeworks* is a trademark of Time- works, Inc. The big world of business remains unpenetrable for me.

Going In

The supplied installation program seems quite OK at first--just choose the proper options and feed the floppies when prompted. *Publisher* will still work from floppy drives, but a hard drive is strongly recommended, and so is one megabyte or more of memory. (Wake up, smell the coffee, almost nothing at all in the PC-DOS world will nowadays work without a hard disk!)

The manual states that up to four printers can be installed at one time. I have chosen just two: Epson LQ, with which my KX-P1124 is compatible, and HP LaserJet at 300 dots per inch.

Well, I knew that all those bit-mapped GDOS fonts take a lot of space, but nobody told me it would be *that* much! After 15 or so minutes of installation, my hard disk partition ran out of space. No problem, the program has a "Modify installation" option, so that, after making more space on the hard disk, I can just continue, right? Wrong! "This option not implemented," says the thing. So why, let me ask, is it in the program at all?

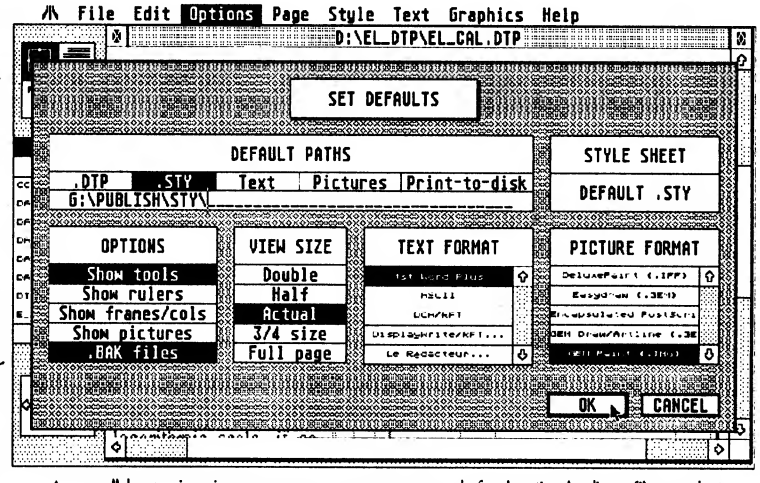
It also does not take a rocket scientist to add up the sizes of font files (which the program extracts from proprietary archives), check the available disk space and issue a warning if necessary. Even in the PC environment this is a common practice. Cheapo, cheapoooo...

Still, not a big thing--after all, you do not do the installation often; usually just when you buy the program and then when your hard disk crashes (and this day will come, better be prepared for it). Twenty minutes later the program with its truckload of fonts was installed, the font width files had been created with the FONTWID.APP program, *G+Plus* was waiting nicely in the background (instead of GDOS supplied with the *Publisher*), and just one thing remained: **to run it.**

For starters, I have used a 400k .DTP file (created with the original *Publisher ST*) of my newest *Star Base* manual; some textual changes had to be made and some pictures added. And, a very funny feeling, everything (well, almost everything) worked just fine.

Evolution, not Revolution

The good news is: *Publisher 2* reads files created with the older version (and seems to do it somewhat faster, too). The opposite is not true: the original



A small but nice improvement: program defaults (including file paths) can be defined and saved.

Publisher will not read the new files. This means that Joe cannot use his old version to print this article, which I am preparing with the new program.

A closer look at the program's behavior suggests that there is more new to it than meets the eye. In particular, font reading and storage must have been changed significantly (and for the better).

Generally, the changes are evolutionary rather than revolutionary: the look, feel and behavior of the original *Publisher* have been retained in this version. This is good. On the other hand, some of the users may be disappointed with a relatively small number of enhancements. Before complaining, however, let me have a closer look at some aspects of the program with which I have spent a better part of the last two weeks.

Fonts, Fonts, Fonts...

The old *Publisher* was somewhat disappointing here. It came with a limited set of fonts, and these were not of the highest quality. In principle, you could install your own fonts from third sources, but the program was quite buggy here (listing fonts in the ASSIGN.SYS file in one order would work, in another wouldn't). I bet GST was aware of this from the very beginning, because the manual would not even tell how to change the font set, and the follow-up packages from Timeworks/GST were strangely missing *any* fonts, being limited to some clip art, borders and other less-important trinkets.

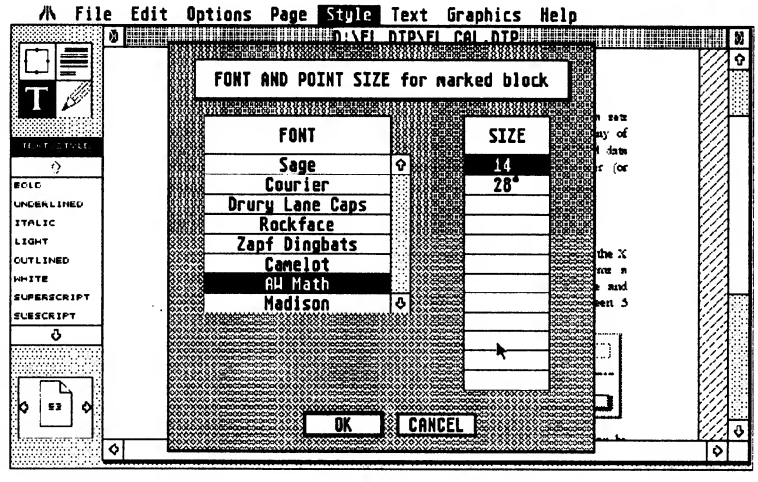
The new version has a larger set of fonts, and they look better, too. In addition to Sans *and* Serif (former Swiss and Dutch, a.k.a. Helvetica and Times Roman), and Zapf Dingbats (like the old Bullets), there are six others, including the monospaced typewriter-style Courier. The latter is a relief, my *Programming as a State of Mind* (watch this space soon) will finally have the program examples typeset properly!

Equally important, the program's co-operation with GDOS (or, better, *G+Plus*) has been cleaned up. To add new fonts, just move the font files to the *Publisher* font folder, add their names to the ASSIGN.SYS file (or whatever name you may use) and re-run FONTWID.APP. I have added three fonts to the set, including a set of math symbols hacked up with *Fontz* for the *EI_Cal* manual. Works like a charm.

Needless to say, the 8-font limitation has been lifted. The manual does not state what the new limit is (as a matter of fact, it does not say anything about adding or replacing fonts). I am running a 2.5-megabyte ST, and with twelve fonts everything looks OK.

To use the nine fonts supplied with the program, one megabyte of RAM is necessary; with less, you will have to do the "minimal" installation. Well, chips are cheap, upgrading your old 520ST to one Mb is the least you can do for it.

If space is a problem, lots of it can be saved by truncating the font sets to ASCII values between 32 (space) and 126 (~), with all English letters, digits and punctuation marks in-between. The fonts supplied by GST have all characters up to ASCII 255, with most never being used by people like you and me, who never do any publishing in Swedish.



Nine fonts are supplied with the program, and adding new ones works better than before. A significant improvement.

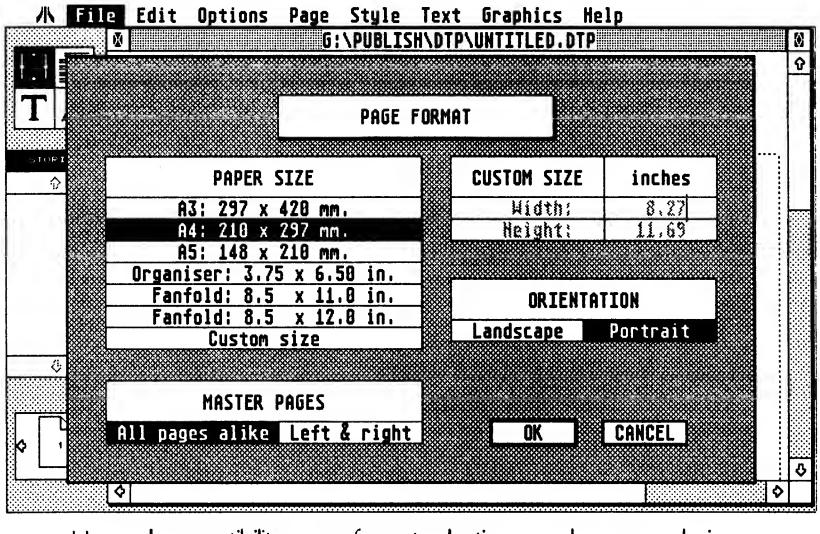
Using *Fontz* (some other programs would also do) I have spent three hours cutting the ASCII ranges (and file sizes) in half, and trying to figure out why GST assume that an American user would prefer those funny characters used by people with unpronouncable names to an option of having more font faces in the most-used character range. (Programs in other languages use these letters at different ASCII positions, so that the upper-ASCII range can be used, at most, for an occasional insertion of an exotic character into your text--if you happen to remember its numeric code.)

After this modification, I gained a considerable amount of disk space, and the font loading process (when the program starts up, when its starts printing, and when the printing is done) has also been speeded up significantly.

I also hope the program will be compatible (it should!) with the announced FSM-GDOS from Atari, a vector font system that should not only provide better quality output, but also allow for a wider variety of font sizes.

Tweaking the Fonts

As I have said, the font files take *lots* of disk space. This may be painful, especially (but not only) if you work from floppies, when you have to go along with a smaller font set.



Upward compatibility: page format selection now has more choices.

The font files for monochrome screen, Epson LQ and HP Laser (the main culprit) take more than 7 megabytes on a hard drive; all other files (programs, overlays, help etc.) need less than 600k.

Multiple Printer Installation (?)

This feature of the *Publisher 2 ST* is, frankly speaking, grossly overstated. The program itself does not know anything about multiple printers; when you run it, you run it for *one* selected printer. Worse, before that you have to re-run FONTWID.APP to create a font width table for the selected printer.

This is not an improvement, but a setback from the previous version. In that one, I could have multiple GDOS configuration files, say, LQ180.SYS and HP300.SYS, and the corresponding font width files, LQ800.WID and HP300. WID. Running under *G+Plus*, I could select the file for the printer I wanted, and *G+Plus* would rename the corresponding .WID file to PUBLISH.WID automatically. Faster done than explained.

The new *Publisher* stores the font width information in two files: PUBLISH.WID (presumably printer fonts only) and SCREEN.WID. The old trick with *G+Plus* will work only if all your printer fonts require *exactly* the same screen font set, which usually is not the case.

CodeHeads to the Rescue?

There is a way out from the above problem: a modification to *G+Plus* might do double renaming (e.g. a .WID file to PUBLISH.WID and a corresponding .SWI to SCREEN.WID). This would solve the problem (just ignoring the "feature" of the program itself) in a convenient and neat way.

Answering my message in the matter, Mr. Eidsvoog of CodeHead Software said they were not planning any updates to their program, but they *will* look into the problem and consider squeezing it into their busy schedule.

The CodeHeads have a very good record of responding to users' feedback, and I hope they will help here (especially if more users of *Publisher 2* will start bugging them, hint, hint!).

Text Export--Sort of

One of the other new features of *Publisher 2* is text export. Quite often we change our text after it has been imported into *Publisher*, and sometimes we may need the modified text back, to use it in another application (or just to run it through a spell-checker).

Publisher 2 allows one to export the text back. Unfortunately, it does it in plain ASCII format, without any font style information (bold, italic, subscript etc.) and without any paragraph tags (which it recognizes in the ASCII *input*).

This is a more serious limitation than it may seem at first glance. In a medium-size document like my *EI_Cal* manual (80 pages of condensed text), we may have hundreds of items of font or paragraph style information. Exporting it into an ASCII file for modifications with a word processor, to import it back into *Publisher 2* would require going through the whole document again, manually changing the style each time. Forget it, I have better things to do.

Export *with* style attributes (for example, in *Word Writer / First Word* format) and paragraph tags would be much more useful. At present, it is just half a step in the right direction.

Samples of the *Publisher 2* fonts.

Other New Features

Other improvements are useful, but less visible. The text may now flow around irregular polygons (not just rectangles) defined with a mouse. New text attributes (like "boxed") are provided, a wider variety of text and image file formats are being handled on input and the frames can be grouped and manipulated together. There is also an autosave feature. *Publisher 2 ST* is compatible with the PC-DOS version, both in use and in file format. Some of us may find this useful.

The new goodies make the program look better in a feature-by-feature comparison with the competition, but for me they are less important than improved font handling (in spite of my complaints) and smoother program behavior.

Bugs

Yes, I found some already. Screen redraws are sometimes messy. A text export file was sometimes unreadable by the *Word Writer* (re-entering *Publisher* and exporting again would help). Worst of all, an attempt to save a .DTP file with insufficient disk space resulted (after five minutes or so of disk activity) in losing the document. Make sure you have enough space; if not, save on a floppy! Still, these were lesser problems than those I have experienced with other DTP programs, and the bugs are not of a critical nature.

The Manual

The manual is, typically for GST, well-written and good-looking. On the other hand, while being an

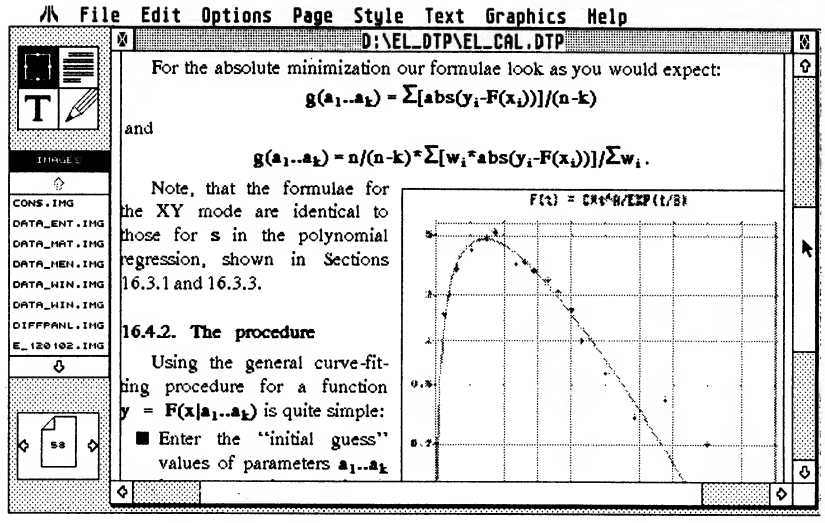
excellent introduction for a newcomer, it is not very useful for a more advanced user.

The reference section near the end contains very little useful information. For example, there is nothing about using fonts other than those enclosed in the package, or about the correspondence between screen and printer fonts.

The user interface of *Publisher 2* is so well-designed that most users will hardly need the book at all. A more advanced manual would be very welcome.

The Verdict

Generally, I like *Publisher 2 ST*, and I am going to use it a lot. After two weeks of working with it on two program manuals and some smaller documents (including this very column) I found I can live with it better than with any other desktop publishing program on the ST. Some of them may have better or faster output, or fancier features (how often do you need to rotate or shade text?), but this one is, for me at least, the best compromise between features, speed and convenience of use. If you are looking for a no-nonsense, user-friendly and quite competent DTP program, look no further.



You can use a *GDOS* font edior like *Fontz!* to define your own fonts for special applications. My math font does not look too good, can anyone find a better one?

On the other hand, I bought the original *Publisher* four years ago for a deeply discounted $80. Four years and the price increase made me expect somewhat more--a significant upgrade, not just an update.

Do not misunderstand me. This is a very good program. I just wish it were a tad better.

My Turn

A Dissenting Opinion

by Joe Waters

Andrzej has just provided a glowing review of *Publisher 2* and I am delighted it worked so well for him. As for me, it took me six or seven hours to print out Andrzej's article using *Publisher 2*. Since this is a family magazine, I can not accurately relate the many comments I uttered about *Pub2* during this ordeal. Suffice it to say, I had nothing but trouble.

I have *Pub2* installed on Joyce's MegaSTe. We had not used it heavily, but it did seem to get out a few flyers she needed to do for the Boy Scouts. She did say that it crashed a lot on her, but, you know, she is a novice. I thought the crashing was related to the fact that she liked to create text while in *Publisher* rather than import it.

I do all of my work on my MegaST. The SLM804 hooked up to my printer is the one we use for final copy (it usually has the newer printing drum and does a better job of producing final copy.) So, when I got Andrzej's aricle written using *Publisher 2*, I thought it was time to go ahead and install *Publisher 2* on my system. (Was I going to buy a separate copy to put it on my machine? Of course not; I'm not crazy.) I followed the installations instructions to the letter. I installed it on drive "G," and all seemed to go well. I ran the FONTWID program, rebooted, and ran the *Publisher 2* program. It came up fine. I thought I would load one of the sample documents and test it, but when I tried to do that, my computer locked up tight as a drum. I had to reboot. I went through many different tests, even re-installed the whole system from scratch, but always the same result. I could run the program. I could type some text in and print it. But if I tried to load a file (or, as it turned out, even to save a file), the system would lock up and I would have to reboot my computer. It just won't work on my Mega ST.

OK, enough of that. I took Andrzej's file to the Mega STe. At least I could load it and see what he had written. I did so and, sure enough, all six pages were there. I printed them out. The first page came out fine. The second page came out with the first superimposed on it. The third page came out with both page 1 and page 2 superimposed on page 3. Do you see a trend here? I cancelled the printing. I tried just printing page 4 and 5. Page 4 was fine. Page 5 came out together with the previous image of page 4. To get all six pages, I had to eventually print just one page at a time.

Andrzej had used the new Serif font. It looked

fine, but it seemed bigger than normal. I checked the font setting and saw that it was set at 12 point. *Current Notes* publishes in 10 point. However, when I went to change the point size, I was amazed to discover that the smallest Serif size was 7 point and the next available size was 12 point! I had to switch his whole article to the Sans font since that did have a 10 point size. (Of course, since *Publisher 2* uses styles, this wasn't particularly difficult.)

I called Andrzej to explain the problems I was having with "ghost" printing. He suggested using the printer driver supplied with the original *Publisher ST.* I changed the line in the ASSIGN.SYS file that specified the printer driver. After this change, I tried to run multiple pages and every page came out fine. The printer driver supplied with *Publisher 2* for the Atari SLM804 was, obviously, the culprit.

Andrzej, who is very clever with fonts, included some special font files with his article. He told me how to put them in the GEMSYS folder and to add their names to the ASSIGN.SYS file. I tried that. I tried that in many different permutations. Many different runnings of the FONTWID program. Many reboots of the system. I could never get *Publisher 2* to recognize the extra font files. I finally just deleted references to these files from his table on page 49 illustrating the different fonts.

Joyce is the final editor on all CN articles. After I print out a first draft, she goes over it and makes sure none of our authors have done terrible damage to the English language. (She would have also edited out what I really felt about this program.) She made her corrections to Andrzej's program and then I went back to do the final editing. Usually, this just consists of changing a word here or there, making sure the comma is in the right place, adding a word or two to clarify the meaning—small changes. I went back to Andrzej's article to make the corrections she had indicated. I finally found out about her crashes. Three times during that editing session, right as I was simply typing a letter, I would suddenly find myself thrown back on the desktop. *Publisher 2* had crashed! What's more, it left my system messed up so I really had to reboot the whole computer. I might have crashed more, but two of those crashes came at exactly the same spot, as I tried to insert the word "one" into the text. After the second crash, I just skipped over that change. I don't know why the program crashes, but it definitely does, and I am not a novice.

In trying to print out the final copy, I noticed that, for some reason, the fonts, which looked fine on the screen, weren't all coming out fine on the paper copy. In particular, the "zapf dingbats" font wasn't at all right on paper, it came out as Sans. I experimented by printing the alphabet, in every available zapf dingbat size, to see if maybe just the one font size in the table wasn't working. Everything looked fine on the screen; nothing came out ok on paper.

Well, I must have just messed up that ASSIGN.SYS file somehow. So I reinstalled everying on the MegaSTe from scratch. When the installation was complete, I ran my sample file with all the zapf dingbat sizes and everything came out on the screen, and the paper, just fine. Well, that took care of the font problem. Now let's print the paper. Whoops, pages were coming out on top of each other again. The reinstallation had put back the original printer driver file. So I, once again, changed the ASSIGN.SYS file to specify the old printer driver. I then tried printing page 49 again. The zapf dingbats came out fine. The Sage font wasn't working.

Sage worked with the new printer driver, but zapf dingbats did not. Zapf dingbats worked fine with the old printer driver, but Sage did not. Now you know why Sage looks so strange in that table. It looked great on the screen; too bad you can't see it. I gave up trying to get it right.

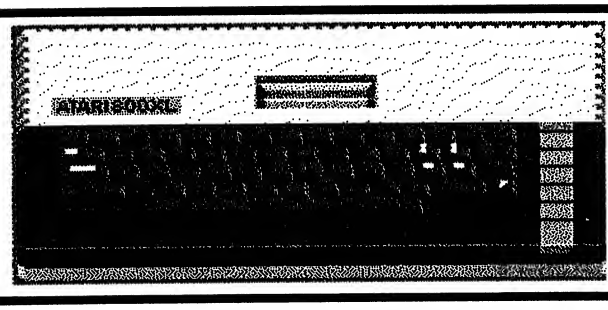
I thought I had better add a few words at the end of this review to relate my experiences. So, I started this story in the space left at the end of Andrzej's review. After inserting a few words, I was suddenly greeted with a message that there was an internal formatting error and I could Continue or Abort. What to do? I tried Continue. But the program just wasn't going to work right. I had just moved a graphic from page 51 to 50 and didn't want to redo that work, so I saved what I was working on and exited the program.

OK, let's just run it again and finish putting in my comments. I loaded the article, and tried to go to page 50. It couldn't do it. The whole file was corrupted. All the editing work that had been done on this article was lost. (Well, John, I did have a copy on floppy disk so I would have only lost the last hour's work.) I figured that was the last straw.

I am writing this response using *Calamus.* Fortunately, I got enough of Andrzej's review printed out that I was able to include it in the issue. (Good old cut and paste will work to combine these comments with the end of the article on page 50.)

Andrzej is right about styles. If I had to do a whole manual, I sure wouldn't want to be using *Calamus.* When I work on CN, I only do one article at a time. I lay out the whole magazine on a story board, so I know on what page every article will start. But I never tried to work with a file with many, many pages. There are features in *Publisher 2* that are very handy. But, if you were to ask me for my current verdict on *Publisher 2,* I would tell you to save your money until GST gets it's act together and puts out a program that actually works.

■■■■■■■



8-Bit Tidbits

by Rick Reaser Jr.

Time Flys!

I can't believe I am at the keyboard again already with my second column! I haven't done 25 per cent of the things I thought I was going to have done by now. There's a lot more 8-bit action out there than I ever imagined. It's clear that I will need some help digging into everything. I'll be planting a few hints and suggestions throughout the column in hopes that someone will bite on the bait. Maybe a couple of you out there will write a short piece or give me a call, or send a letter or E-mail with some leads.

8-Bit Magazine Campaign Update

In their attempt to start a dedicated 8-bit magazine, Jeff McWilliams and Ben Poehland (the Alchemist) have extended the deadline to April 15. The effort has now gone international with Mike Jewison (GEnie: M.JEWISON) working the Canadian side of the border. Colin Hunt of BaPAUG is handling things in the British Isles. Jeff and Ben are also looking for someone to work Australia and New Zealand. As of early March, they printed 1,000 information kits, mailed out 600 and received 180 responses. If you haven't requested your information kit and are interested, please contact:

Jeff McWilliams
2001 G. Woodmar Drive
Houghton, MI 49931-1017
GEnie: J.MCWILLIAM3
INTERNET: jjmcwill@mtus5.mtu.edu

You can get the complete scoop off GEnie in the 8-bit Library on File #5665. There have also been classified ads placed in *CN* as well.

Public Domain Update

I just got the latest C&T ComputerActive Public Domain Catalog through our club. Once again they've done a nice job and there are number of new things. Many of the items have nice descriptions that really aid you in making selections. To get a catalog write:

C&T Computer Active
P.O. Box 893
Clinton, OK 73601

Steve Hoffee of K.O. Distributors has uploaded his latest disk-based catalog of Public Domain items onto GEnie in File #5775. It is pretty clever. The most unusual aspect in the K.O. Distributors catalog is the large amount of European software and the large number of disk-based 8-bit magazines. If you want to order, you can print an order blank right from the disk-based catalog.

If you haven't seen it yet, I recommend that you download some of the public domain demos from Europe that can be found on GEnie. They are fantastic. The latest are ATARI EXPO91.DCM (File #5664) and DAS OMEN.DCM (File #5687). ATARI EXPO is from Holland while DAS OMEN is from Germany. The Europeans are very much into writing elaborate demos of Atari 8-bit sound and graphics. For a small taste of the "European Scene" see this month's article by Ed Hall.

Two thoughts come to mind. There are a world of reviews that need to be done on all that Public Domain software. The STers have a whole magazine (*ST Connection*) dedicated to Public Domain software. Hint! We American's have barely scratched the surface when it comes to European 8-bit software. Any thoughts on how we can remedy that situation?

Editorial

In my mind, the dissolution of the Soviet Union and the liberation of Eastern Europe present a unique business opportunity for Atari Corporation. The Atari 8-bit is still going fairly strong in Western Europe, but there are very few personal computers on the other side of the old Iron Curtain. Former communists simply can't get enough computers, especially given their poor economic condition. Enter the Atari 8-bit! This small, inexpensive, easy to program, and easy to use, T.V. compatible computer could be a gold mine for Eastern Europe as well as the Atari Corporation.

Atari ought to consider going back into production and flooding the former communist empire with inexpensive 130XEs. It would start brand name recognition that would not be forgotten once Eastern Europe gets back on its feet with cold cash to spend on more expensive (Atari?) computers. Already, we are seeing excellent programming from Poland (*Mission Shark* and *FRED*). Set the hook now! The new Marshall Plan should include a strong dose of Atari. It used to be that "Business is War!" Now, "The End of the Cold War Means Business!" Are you listening, Jack?

Information Services

As you can probably tell, I have been a "GEnie person" for quite some time. My original reason for picking GEnie was mainly the cheaper price. (Ever heard the term "Comp-U-Pay?") A few days after taking this post and submitting my first column, I signed onto CompuServe. I figured the broader exposure base would help my ignorance.

CompuServe

In the past month, I haven't really scratched much but the surface of CompuServe. I have come to learn that CompuServe is slightly bigger than GEnie when it comes to 8-bit support. I have also come to learn that CompuServe has a much more complicated pricing system, which is now getting more complicated. (Paying for E-mail by the character is a new concept for me.)

For those of you that haven't gotten the word, starting March 1st, CompuServe started offering two billing options—"Pay as You Go" and "Flat Rate for Basic Services." Of course this is on top of the "Executive Service Option" (whatever that is). It would appear to me that CompuServe is following the path set by GEnie in offering this new billing option. They, just like GTEnie, are also following suit in not being able to figure out what the name of the new billing option is.

Here's what I've decoded. With "Pay as You Go," there is a $2.00 flat fee per month. Just about everything else is $12.80/hr. With "Flat Rate," you pay $7.95/month and get a lot of semi-useless stuff "free." (Mortgage calculator, ShowBizQuiz, Hangman, Visa Advisors.) You also get $9.00 worth of "free" mail as well. The "good stuff" like GO ATARI8, and INTERNET mail is charged at the regular rate. Of course, those last two items were the only reason I signed up for CompuServe in the first place. I'll pass on the "Flat Rate" for now.

Except for the convoluted billing system, I have been fairly impressed with my limited exposure to CompuServe. I uploaded my first file (CURSOR.ARC, see Ed Hall's other article this month). It was a pretty painless upload. I noticed that CompuServe even supports the Kermit file transfer protocol. CompuServe has a bigger (and nicer) magazine than GEnie as well.

GEnie

On the GEnie front, two thoughtful fellows have been faithfully posting the Info-Atari8 digests from INTERNET onto GEnie. Lawrence E. Estep and Oscar M. Fowler are to be commended for their efforts. For those of you not familiar with Info-Atari8, it is a pretty valuable source of 8-bit information. I will be keeping up with the Info-Atari8 digests and putting selected items of interest in this column.

Would anyone be interested in writing a comparison between the 8-bit support on GEnie and CompuServe? Let me know. It would be a fascinating piece.

FIDONET and INTERNET

Two other sources of good 8-bit telecommunications banter are FIDONET and INTERNET. FIDONET is supported by many of your local BBSs and it is a national private network. There is a national 8-bit echo on FIDONET. Very soon, FIDONET will also support INTERNET mail. INTERNET is principally a college computer network and even has subscribers that are overseas. As I mentioned earlier, INTERNET carries the popular Info-Atari8 digest.

I am looking for individuals interested in writing comprehensive pieces or user views of FIDONET and INTERNET. Contact me if you are interested.

Z-Magazine

Another great source of Atari 8-bit information is Z-Magazine, which can be found on both GEnie and CompuServe. (There is also Z-Net which is for STs.) The material in Z-Magazine has changed over time, with the changing nature of the Atari Classic community. Lately, there have been many reviews of 8-bit public domain products which are both helpful and interesting.

Issue #204 of Z-Magazine had a review of the *Digital Music Studio* (DMS) available from Jeff Edwards. DMS is a simple utility for using digitized sound. It is for XL/XE machines only and does not require extra hardware to run. The system includes over 40 digitized sound samples ranging from a dog bark to electric guitar. It costs $8.95.

I recently received Jeff Edwards' latest catalog and besides DMS, most of his products are *Print Shop* and *Awardware* graphics related. For further information write:

Jeff Edwards
138 South Main Street
Travelers Rest, SC 29690

I believe the brightest future for 8-bitters is in the telecommunications arena. With the gradual decline in active 8-bit clubs, local stores and so forth, the way to stay united is through the phone lines. GEnie, CompuServe, INTERNET, FIDONET as well as your local BBS are excellent ways to stay up to date and in touch. If you don't have a modem, get one!!! Which brings me to my next topic.

New Use for Atari Classic Computers

It seems that several of the STers in my own user groups are buying 8-bit computers. In fact, I've gotten several calls the last few days from different STers asking how to set up their new 8-bit systems. What's behind this strange phenomenon? Well, dad is tired of the kids hogging his computer. Many families are

finding a need for more than one computer in the house. Whether it is for school papers or for fun. One computer just isn't enough. Atari 8-bits offer an inexpensive, yet powerful and easy to use alternative for kids in school. Buying another ST may not fit into the family budget, but a used 800XL is powerful enough for most projects and won't break the bank. Since our club has good 8-bit support, it was logical for two of our ST owners who never owned 8-bit computers before, to buy them. Today we got *BobTerm* up and running with an SX-212 for one of the guys. Who says 8-bits are dead in an ST world?

Atari Explorer

Atari Explorer has put out two consecutive monthly issues (January and February). I don't think that is quite a record, yet. There was one 8-bit article in each by Elwood J.C. Kureth. Both articles were pretty good. Elwood wears an Army green suit rather than a Air Force blue one. (Is the military taking over the Atari Classic computer world, not that we don't have to worry about the Russians?) Atari Corporation's official mouthpiece seems to be taking on new life, which is a good sign for us all. And they haven't totally written off the Atari Classic line in the process, another good sign. Most of the articles were about MIDI and the other Atari platforms, but I found them, nonetheless, interesting and well written.

Errata

In last month's review of *Escal Paint*, Ed Hall (who is becoming a regular on these pages) mentioned that *Technacolor Dream* was available from American-Technavision (ATV) for $4.95. Well, the price went up to $9.95. I actually tried to order the program myself and ATV was out of stock.

Summary

In future months, I will be working off the backlog of articles submitted to Ben Poehland under the Alchemist's tenure. There have already been a few very interesting articles submitted since I took over. There doesn't seem to be any shortage of material to print. I also plan to become more CompuServe literate this next month and will try to let you know what things are new and if things are available on there as well as GEnie. Be sure to let me know if you have any comments, questions or suggestions. Be seeing you on the "services."

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CompuServe: 72130,2073

The European Scene

8-bit Atari Still Strong

by Ed Hall

When first *Analog* and then *Antic* folded, I panicked. Living in a small community in the Canadian arctic, I had met only one other 8-bit Atari user in seven years, and that was my cousin in California. *Antic* and *Analog* were my lifeline to the Atari community, but I never fully appreciated them until they were gone. What was I to do now? Desperately, I sent off letters to users' groups all across the continent. In the process, I discovered Europe.

It began when I found a venerable Atari magazine which still devotes two-thirds of each issue to the 8-bit line. It comes out bimonthly on coated stock, and features reviews, type-in listings, and letters from readers. The publisher has an extensive PD library and also sells not only commercial software but also books. Sound interesting?

The publication is *New Atari User*, and it's put out by Page 6 Publishing of England. It's a quality magazine and well worth investing in if you're a die-hard 8-bitter.

One of the most interesting aspects of this magazine is the insight it gives us into the European scene. The software available from advertisers is a very mixed bag. There are many old titles still being flogged at comparatively high prices—stuff that most North American users would probably turn up their noses at—*PacMan*, *Kaboom*, *Donkey Kong*, *Caverns of Mars*, *Castle Wolfenstein*, etc. I even recognized a number of titles still for sale there, but widely available here from reputable public domain libraries.

On the other hand, you will also find a plentiful number of games that have never been released in North America. Some are games that you've heard of, but probably never knew were available for Atari 8-bits—games like *Arkanoid*, *Jinxter*, *Knight Orc* and *Black Lamp*.

Most of the titles you will not even recognize, and many are absolutely smashing. Some, like *Zybex*, *Draconus* and *Ninja Commander*, employ a graphics style which, to my eye at least, resemble those found on many games for the ST—the ones with hard-edged metallic hues. The musical scores for these games are excellent, and, in fact, rather typical of software coming from Europe—a sort of synthesized rock music.

One of my favorite games is *Phantom*. It's a low-cost *Gauntlet* clone with nice graphics and an irresistable tune. It's marred only by a somewhat sluggish joystick response. Others that I can recommend are *Plastron*, *Timeslip*, *Space Lobsters*, *Mirax Force*, and *Basil the Great Mouse Detective*. Although these are the only games with which I have first-hand experience, no doubt there are many others that are equally good.

Before you rush out and place an order, though, there are a few risks and problems you should be aware of. First of all, despite all the glowing things I've said about European software, remember that there are bound to be a few bow-wows in the bunch.

Another problem is that many titles are available only on tape. This is a mixed blessing, actually. Games on tape are cheaper than those on disk, and many sell for as little as $1.99. I myself picked up a second-hand 1010 program recorder for $10 just to be able to try out these games. Furthermore, *New Atari User* sells a program called Transdisk, which enables you to transfer hundreds of tape-based games to disk.

The last thing to remember is that TV systems in Europe are not the same as in North America (they're better, actually). This means that occasionally software will not run correctly here. The problem has cropped up with maybe 10% of the software I've obtained from Europe, both PD and commercial.

If you'd like proof of the quality of European software, check out some of the demos that are now becoming available in PD collections here. There are programmers (teenagers mostly) who are doing things with their 8-bit Ataris that you never would have dreamed possible. The demos come from such unlikely places as Holland and Poland, and often are not in English. Of one such demo, *New Atari User* says, "If this were run on a monitor alongside an ST, we guarantee no one would be able to tell the difference." Having seen some of these demos, I know that this is not just hype.

A common feature of these demos are huge scrolling messages (called "greetinx") from these wonder-kids to their buddies. Unfortunately, their exuberance sometimes spills over into scatology, but if you're willing to overlook this, the demos can be an eye-opening

and ear-popping experience. One of them, called the Big Demo, has an entire disk-side of sampled music which is so good you won't (as the disk boasts) believe your ears. [Editor's Note: Big Demo can be found in the GEnie 8-bit Library, Files #5418 & #5419. —RR]

But inspite of all this exciting stuff, the 8-bit Atari scene is waning in Europe just as it has waned here. *New Atari User* is beginning to utter the same sort of editorials that Nat Friedland wrote in the last days of *Antic*. So, if you're a hardcore 8-bit enthusiast, I urge you to subscribe to *New Atari User* and check out the European scene. Don't wait until it's too late.

[Editor's Note: I estimate that Europe is at least five years behind North America in terms of an 8-bit demise. But it is hard to tell, since many of the used 8-bit systems are finding their way into Eastern Europe where they are getting new life. —RR]

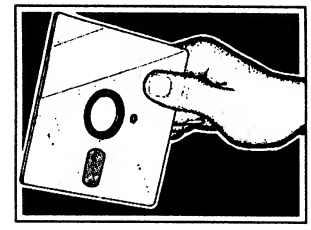
Write to: Page 6 Publishing, P.O. Box 54, Stafford, England ST16 1DR.

A one-year subscription is is 15 pounds by sea and 21 by air. You can also a magazine with disk for 32 pounds (sea) or 42 (air). Each disk issue has a bonus program not available as a type-in. VISA and MasterCard are accepted. All prices in this article are given in British pounds.

Fun with Cursors

Redesign Your Cursor in Any Shape or Color

by Ed Hall



One of my favorite pastimes is prowling through back issues of *Antic* and *Analog*, searching for interesting tidbits. I'm seldom disappointed. Occasionally, it's something I've completely overlooked, but, most often, it's a program that I had no interest in before, usually because it was too arcane for my limited programming skills.

Recently, I came across such a program in the November '84 issue of *Antic*. Entitled "Create Your Own Cursor" by Jerry White, I recalled how it charged me with enthusiasm the first time I read it. Now I could redesign a cursor in any shape or color I wanted. Great! All I had to do was change the data in a certain line. Then I realized there were no instructions on how to do this, and my enthusiasm promptly vanished.

Some time later I came across another little program that caught my interest ... and a light went on in my head. "Joystick Cursor" by Ted Stockwell appeared in the May '86 issue of *Antic*. It transferred cursor control to a joystick.

By this time my own skills had improved somewhat, so I went back to "Create Your Own Cursor" and managed to merge the two programs. (I just sort of hitched them together.) Then I puzzled out the secret of the mysterious DATA statement. Jerry White's cursor is actually a player, which is designed on an 8 x 8 grid. The illustration below shows how to arrive at the 8 numbers (listed vertically) needed for a lightning bolt cursor.

128	64	32	16	8	4	2	1	
				XX	XX			=12
			XX	XX				=24
		XX	XX					=48
	XX	XX						=96
		XX	XX					=48
		XX						=32
	XX							=64
XX								=128

Eight numbers are required, and none may exceed a value of 240. You enter 0 for a blank row.

After doping this out, I celebrated with an orgy of shape-designing. Here's what I came up with:

lightning bolt:	12	24	48	96	48	32	64	128
pac–man:	30	63	118	124	120	120	60	30
tie–fighter:	0	65	73	93	127	93	73	65
bug:	66	36	24	126	153	36	66	129
bulldozer:	0	64	64	122	2	122	134	121
jet plane:	0	152	204	127	12	24	112	96
hand:	96	50	26	29	54	111	95	63
coiled arrow:	62	34	42	42	42	174	224	240
crooked arrow:	240	192	160	144	16	16	16	16
insert symbol:	0	64	32	16	16	32	64	0
I–beam:	224	64	64	64	64	64	64	224
horizontal lines:	0	240	0	240	0	240	0	240
hollow square:	240	144	144	144	144	144	144	240
underline:	0	0	0	0	0	0	0	240

These cursor shape data numbers go in line 490. Cursor blinking rate (RATE) is found in line 500. Enter a zero if you don't want the cursor to blink. For cursor color (CCOLOR), enter any value from 0-255 in line 510. Finally, poke location 0 in line 520 with a number to control cursor speed.

I added a little guy who greets me during the few moments it takes the program to initialize.

[Editor's Note: The BASIC program listing can be found on page 59. The "little guy" was created with Atari control characters which are hard to put in a magazine BASIC listing without special printing fonts. "X's" have been substituted in the place of the control characters. You can change these "X's" to anything you want. If you don't want to type in this program, it has been posted as CURSOR.ARC on GEnie (File # 5779) and CompuServe (Library 14, keyword = CURSOR) in the 8-bit libraries. —RR]

Now whenever I boot up my XE, I can use my joystick to control a cursor which suits my mood. In fact, since my repertoire of joysticks includes one disguised as a mouse (see review in the November '88 issue of *Antic*), I feel like I'm driving a brand new vehicle.

Silly? Maybe. Fun? You bet!

[Editor's Note: the Author and Staff of *CN* acknowledge with thanks the assistance of Abe Waranowitz who fixed a bug in the accompanying program that originally caused an annoying video artifact to appear at the top of the screen. —Ben Poehland]

```
1 REM ******************************
2 REM Joystick/Cursor Routine
3 REM by Jerry White & Ted Stockwell
4 REM Modifications by Ed Hall
5 REM ******************************
10 GRAPHICS 0:? CHR$(125):POKE 752,1
20 POSITION 16,3:? "XXXXXXXXXX"
30 POSITION 16,4:? "XXXXXXXXXX"
40 POSITION 16,5:? "XXXXXXXXXX"
50 POSITION 16,6:? "XXXXXXXXXX"
60 POSITION 16,7:? "XXXXXXXXXX"
70 POSITION 16,8:? "XXXXXXXXX"
80 POSITION 16,9:? "XXXXXXXXX"
90 POSITION 17,10:? "XXXXXXXX"
100 POSITION 18,11:? "XXXXXXX"
110 POSITION 18,12:? "XXXXXXX"
120 FOR LOCATION=272 TO 272+47:READ
BYTE:POKE LOCATION,BYTE:NEXT LOCA-
TION:RESULT=USR(272)
130 DATA 104,160,27,162,1,169,6,32
140 DATA 92,228,96,206,63,1,208,24
150 DATA 165,0,141,63,1,173,120,2
160 DATA 73,15,240,12,162,255,232,74
170 DATA 144,252,189,59,1,141,252,2
180 DATA 76,95,228,142,143,134,135,5
190 POSITION 9,9:? "JOYSTICK  "
200 ROUTINE=(PEEK(106)-6)*256
210 FOR ME=0 TO 60:READ IT:POKE ROU-
TINE+ME,IT:NEXT ME
220 POSITION 7,9:? "CONTROLS XXX"
230 FOR ME=61 TO 120:READ IT:POKE ROU-
TINE+ME,IT:NEXT ME
240 POSITION 7,9:?  "  CURSOR XX"
250 FOR ME=121 TO 180:READ IT:POKE
ROUTINE+ME,IT:NEXT ME
260 POSITION 10,9:?  "      XXXX":POSI-
TION 2,10:? ""
270 DATA 104,165,212,24,105,36,133,212
280 DATA 165,213,105,0,133,213,162,7
290 DATA 160,144,177,212,157,0,6,136
300 DATA 202,16,247,164,212,166,213,169
310 DATA 7,76,92,228,173,240,2,240
320 DATA 124,173,43,2,240,4,169,0
325 REM CHANGE 8 TO 255 $06FF  (330)
330 DATA 240,6,173,255,6,24,105,8
335 REM CHANGE 8 TO 255 $06FF AND
336 REM 255 TO 254 SO IT DOESN'T
337 REM GET ERASED          (340)
340 DATA 141,255,6,48,104,160,254,169
345 REM CHANGE 8 TO 7 $0607   (350)
346 REM CLEARS FROM $06FE TO 0607
350 DATA 0,153,0,6,136,192,7,208
360 DATA 248,169,10,141,194,2,141,20
370 DATA 208,169,1,141,111,2,141,27
380 DATA 208,169,0,141,10,208,169,0
390 DATA 141,7,212,169,2,141,29,208
400 DATA 169,58,141,47,2,141,0,212
410 DATA 166,85,164,84,165,87,13,147
420 DATA 2,240,12,173,191,2,201,4
```

XBoot: The Boot Manager

An Effective Program Package

by Sam Van Wyck

I always wanted a bootup system; one that would allow me to organize my AUTO files and desk accessories according to the job to be done. Unfortunately, although I tried several shareware offerings, I was never able to get one working satisfactorily. That wasn't the fault of the programs. As is so often the case, the problem was at the user end.

Such was not the case with *XBoot*. *XBoot* has brought together three essentials that make an effective program package. First, it has the necessary bells and whistles to insure its usefulness and versatility; lots of bells and whistles. Second, it offers some of the best documentation it has ever been my pleasure to use. All this combines with the third essential, ease of use thanks to an intuitive and useful interface allowing input by mouse and/or keyboard, excellent graphics and a customizing feature that allows the user to set things up in a number of different configurations.

From the foregoing, you can probably guess that I liked the program. Usually, I keep my opinion until last so the lazy reader won't just look at the first page and say, "Well, if Van Wyck likes/hates it then it must be awful/great," and read no further. OK, so I liked it; but read on, anyway.

What It Does

Here are some of the features that make this program so helpful (with apologies, I'll crib this almost directly from the manual):

- Control is by either mouse or keyboard.
- Runs in mono and color, on large screen monitors and in medium and highrez TT modes.
- Often-used AUTO and .ACC groups may be saved as a "SET."
- Allows reordering of AUTO programs.
- Provides for system time & date input and holds this data over a reset.
- DESKTOP (or NEWDESK).INF parameters may be set and saved.
- ASSIGN.SYS and DESKTOP.INF files can be modified at any time.
- Permits autostarting of any GEM program for ALL versions of TOS.
- Provides a powerful command line function for automating supporting programs such as ramdisks, spoolers, etc.

Installing *XBoot* on your hard drive is simplicity itself. Tell it where your boot sector lives, click on START! and the job self-completes in a few seconds. It even brags about its progress along the way.

XBoot is initiated by either cold boot or a reset (warm start), bringing up the main screen display. Here are listed all the files in your AUTO folder plus all the .ACC and .ACX files on your boot drive. There is room for thirty items in each column, and vertical scrolling within each column allows viewing of anything that might be off the page. Highlighting an item by mouse clicking or cursor key movement allows it to be chosen or dropped from the bootup roster. Naturally, the 6 item limitation on accessories applies here and attempting to exceed that number results in a warning. At the foot of each column, selector boxes allow you to sort the items by alphabet or order of run (especially important in setting up the AUTO folder) and to cancel all choices before reselecting.

Establishing Sets

The heart of *XBoot* is its ability to establish SETS. A SET consists of a main application, supporting AUTO folder and desk accessory items plus, if desired, a specific resolution and desktop arrangement. Ordinarily, I leave one group of support programs in the AUTO folder and except in the case of an update, seldom make any changes. This is mostly due to laziness. If an unneeded program does not hinder the operation of the main application, it is generally too much trouble to dig into the root directory, change two or three file extenders from .PRG to .PRX and then reboot. The next time I need those little helpers, I usually find I've forgotten to reactivate them.

All that is changed with *XBoot*. In the SET column, typing in the name of a favorite application ties it directly to the AUTO programs and .ACCs that have been selected. This combination (SET) is now saved. Whenever that application is chosen from the XBoot menu, the specific goodies needed, and only those, go along with it. Loading time is shortened since unnecessary programs are not used. Upon choosing another application, only its related AUTO and .ACC files are installed. Each item in the SET menu is numbered and may be chosen by mouseclick or keystroke.

Autostart and Other Features

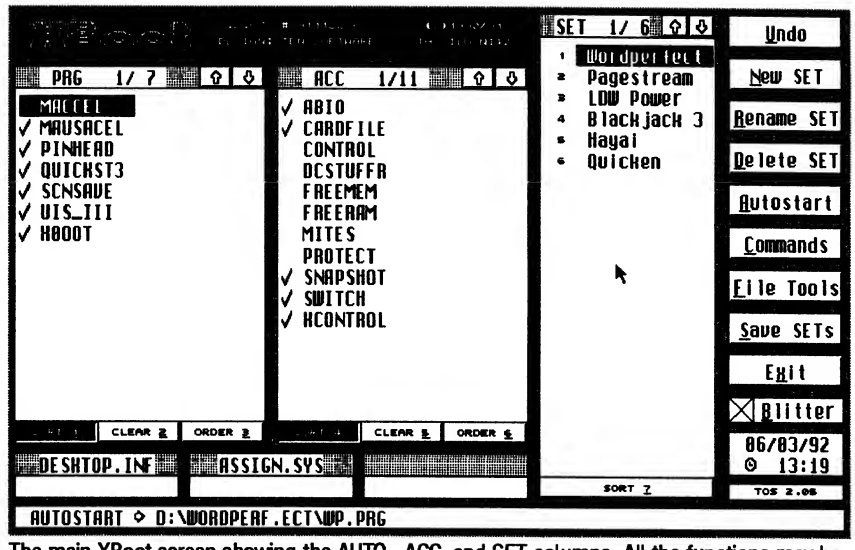
Having chosen an application and accessories, it is possible to have this program launched by *XBoot*

rather than having to wait for the desktop. The Autostart function calls up a special file selector which defines the program's location. Saving this information now permits the entire group to be brought up and running with a single keystroke. Users of early versions of TOS will be happy to learn that the Autorun function will operate properly on their machines.

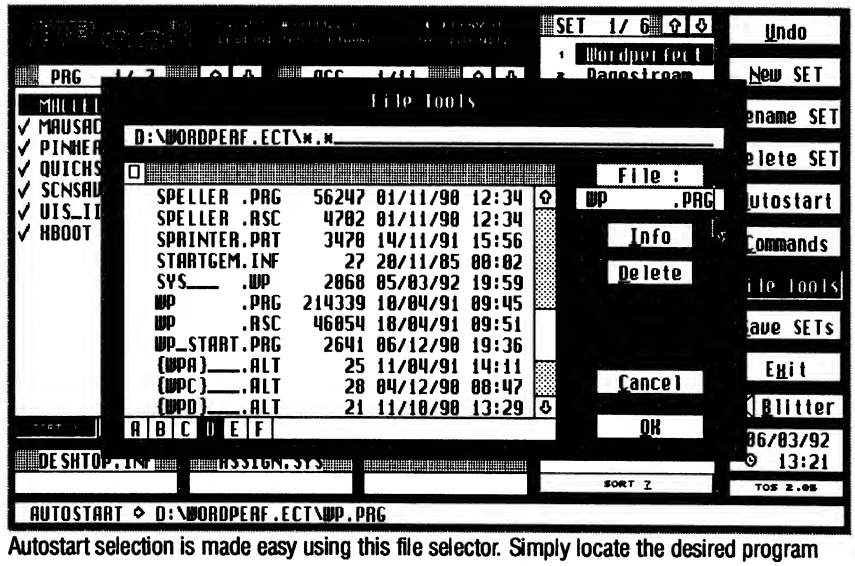
If subsidiary programs are needed for the proper operation of the chosen application, a series of commands may be recorded to invoke them. For instance, if a ramdisk is needed, its creation may be automated via the Commands menu.

A separate program is used to configure *XBoot's* many operating characteristics. Some of these are:

- The use of a hotkey to load or bypass *XBoot.*
- Setting of a time delay for bypassing *XBoot.*
- Setting the form of the date display.
- Determining which lists shall be alphabetized.
- Setting double click rate and mouse speed.
- Advising *XBoot* of the location of accessories.
- Setting of screen colors (for the *XBoot* screen only).



The main XBoot screen showing the AUTO, .ACC, and SET columns. All the functions may be activated by mouse or keystroke.

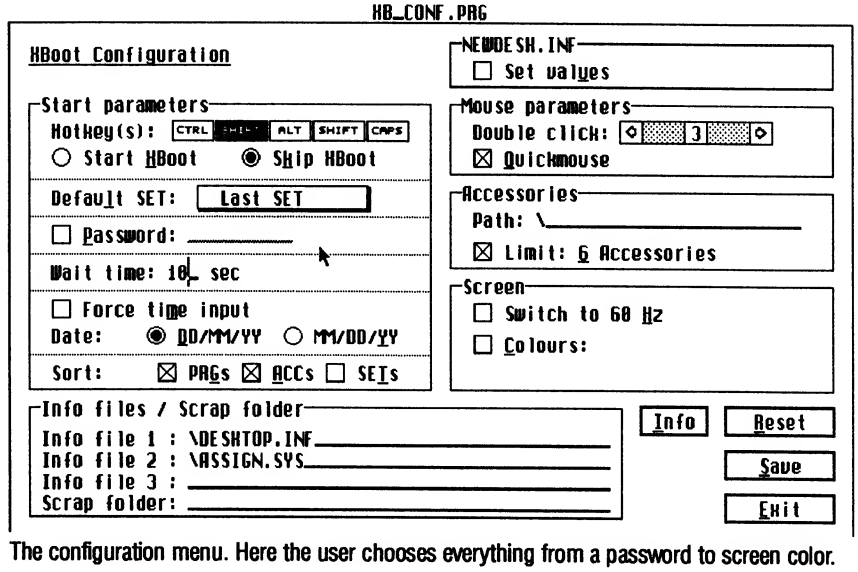


Autostart selection is made easy using this file selector. Simply locate the desired program and click OK. XBoot does the rest. Next time the program is selected, it will come up running.

Updates Included in V.2.5

The program version reviewed was V.2.5. An addendum sheet was included to describe additional features not shown in the book. Most of these have to do with an expansion of the command line functions permitting a much greater flexibility in controlling the program. Also, several control functions have been modified or added. A password may now be incorporated in case you wish to lock your door against unwelcome intrusion.

XBoot was programmed and documented by Tassilo Nitz with the English translation by Donald P. Maple. List price is $39.95 but if you manage to get in on the introductory offer you can have it for only $29.95. It is distributed in the U.S. by Gribnif Software, P.O. Box 390, Hadley, MA 01035. Phone: 1-800-284-4742.



The configuration menu. Here the user chooses everything from a password to screen color.

Learning 68000 Assembly Language on the Atari ST

by Robert G. Beard

Several years ago, when I bought my ST, I was interested in "hacking" out a program or two and taught myself some BASIC, C and Pascal. But I had a notion that it might also be fun to understand assembly language as well. After all, some of the most respected programmers (like Charles Johnson of Codehead and Mike Vederman, Paul Lee, and Keith Gerdes of Double Click, and Dave Small of Gadgets by Small) write in assembly language.

So, I thought it would be fun to pick up a book or two on assembly, crank up the assembler and teach myself something about assembly on the Atari ST. First, "teach myself" was the operating word. You won't find 68000 assembly in any of the class listings for the local adult education classes or the nearby universities. The first books I bought were frustrating. The problems were many; the solutions few. The biggest problem was that the books were written in a general way and specifics for getting the examples to work on the ST were nowhere to be found. And there weren't friendly professors around to help out.

Now that has changed. There are two excellent new books that have largely solved the mystery of getting assembly to work on the ST. The first is the **Assembly Language Workshop** by Clayton Walnum. (Yes, it's that old friend of *ST-Log* and *Analog* magazine fame, and whose book **C–Manship Complete** has been highly regarded.) The second book is titled **Introducing ATARI ST Machine Code** and comes by way of zzSoft in Lancashire, England. The authors are Roger Pearson and Sean Hodgson. Both of these books deliver solid information and program examples developed on the Atari ST.

The Assembly Language Workshop, Vol. 1 is a 260-page book complete with a disk of source code and assembled programs. Mr. Walnum's introduction to assembly is "gentle" and anyone who has experience in some other high level language on the ST should be able to follow along. The first few chapters deal with the topics of what assembly language is, what are bits, bytes, words and longwords, numbering systems and some explanations of the computer system, e.g. explaining registers, memory, program counter, the stack and the status register.

Each chapter is progressively more detailed and by Chapters 4 and 5, there is treatment of function calls, branching, some of the addressing modes, number conversions and a little bit of philosophy on programming style. Chapters 6-11 introduce more on subroutines and looping, handling numbers, accessing the GEMDOS clock, file handling and printer output and concludes with an example of loading a DEGAS format file.

The writing style is chatty and very similar to the way that Mr. Walnum writes in the **C–Manship Complete** book. The programs are clearly coded, the written explanations good and helpful to understand why certain operations are being done. This book will give you the information you need to start coding in assembly on the Atari ST.

The second book, **Introducing ATARI ST Machine Code**, was actually copyrighted in 1990, but I only learned of it last year. In fact, I ordered it directly from zzSoft, 25 Honeyhole, Blackburn, Lancashire BB2 3BQ (phone 0254 672965) by mail, since it has not appeared at any of my "local dealer's shelves." **Introducing ATARI ST Machine Code** purports to be a book that anyone who has experience using the ST can use. My own bias is that the user will want to have some experience in programming before jumping into this book, but nevertheless, this is one no-nonsense, write code book. It comes with a GEM-based, integrated editor, an assembler and linker, a public-domain debugger and resource construction program. Plus, there are about 40 example programs and complete GEM and TOS operating libraries in ASCII format, some DEGAS pictures, advice on using other languages and other assemblers and an example GDOS application.

Authors Pearson and Hodgson explain the examples in the book, but not in great detail, and expect that you will read the code. However, they do give very good information and instructions on using the tools, including an excellent introduction on using the supplied debugger. (Using debuggers in a virtual necessity in assembly language, yet most texts, being general, have nothing practical to say about actually using a debugger.)

The amount of ST territory this book covers is amazing. The first few chapters cover data types, the debugger, addressing modes, files and the screen. By Chapter 8, we are doing picture conversions from mono to low rez, and in Chapter 9, doing a disk format. Chapter 10 gets into GEM and the AES; chapter 11 introduces the VDI and chapters 12-22 go into using GEM for windows, file selectors, drop-down menus, using the Resource Construction Program (and how to use it for assembly programs), GDOS, interfacing with GFA Basic, etc.

Clearly, if you want to learn assembly, these books will help you. You still have to make an investment in time and effort to understand assembly language. Programming takes time and mental effort, and patience in finding mistakes. Nevertheless, the rewards of seeing your code assemble are hard to describe.

Are there any negatives to the two books reviewed? First, why do both of these books include a disk with the code examples and then waste the space in the book repeating each example? I would prefer the authors spend that space giving us more explanation. Second, Walnum's book lists for $24.95 for Vol. 1., and you will need an assembler. **Introducing ATARI ST Machine Code** set me back $47 with shipping, handling, and exchange figured in, although you do get an assembler and a full disk of "stuff." If you buy all three of the Walnum titles (and only Vol. 1 is now available), that's about $75 plus the cost of your assembler. If you're really interested, these costs are nothing, but if you are just dabbling, the price tag is something to think about.

In closing, let me list some of the books on 68000 assembly that are published along with my thumbnail impressions. (Some of these titles may be hard to find or out of print.)

Compute's ATARI ST Machine Language Programming Guide, by Simon Field, Compute Publications, Greensboro, NC 1987. (Disorganized, full of jargon, examples not too helpful.)

68000, 68010, 68020 Primer by Stan Kelly-Bootle and Bob Fowler, Sams& Co. 1985 Indianapolis. (Painstaking intro to assembly; no practical examples, but does give a thorough grounding in the basics.)

680x0 Programming by Example, by Stan Kelly-Bootle, Sams & Co. Indianapolis, 1988. (Some good examples; not geared to the ST very well.)

First Steps in Assembly Language for the 68000, by Robert Erskine, Bantam Books, 1986. Hard to find. (Good theoretical intro to 68000 coding; not ST specific.)

68000 Assembly Language Programming, Second Edition, by Leventhal, Hawkins, Kane and Cramer, Osborne, McGraw-Hill, Berkley CA, 1986. (Stodgy, professorial, but well-commented examples. Code examples use ORG directive and will not run as written on ST and must be made relocatable.)

Assembly Language Programming for the 68000 Family, by Thomas Skinner, John Wiley & Sons, 1988. (Excellent combination of theory and practical work. Not many examples, but well written. Appendix has a "shell" so code examples will run as written in book.)

MultiGEM

Lacks Sparkle

Review by Bob Ledbetter

What potential! What possibilities! What an idea! What a let down! *MultiGEM* by Rimik Enterprises is all of the above. It works as promised on only a select few programs, of which WordPerfect is not one.

I was so looking forward to being able to "bounce" back and forth between *WordPerfect* and SpiritWare's *Bible Concordance* program, but alas, the only "bouncing" was done with the *WordPerfect* window. Having successfully loaded *WordPerfect* into *MultiGEM*, I tried putting the concordance program in with it. The only thing that happened was the *WordPerfect* window jumped around.

MultiGEM would not accept another program. I allocated a certain amount of memory for *WordPerfect* as well as Concordance, and still no go. I tried putting another program with it, and again the *WordPerfect* window jumped around. Oh, I could get into *WordPerfect* alright, but not into anything else.

I then found the trusty, dusty *Word Writer/Concordance* combo works just fine. That's okay for the multitude of folks who regularly use *Word Writer*, but for those of us who need *WordPerfect*, it looks like multi-tasking is but a dream. I put together a few different newsletters and the folks that do the writing use *WordPerfect* and it makes their life much easier to simply save a WP file.

Thinking the company would be able to offer some advice, I placed a call to them. When that one was not returned, I tried again. And again. After leaving three messages on the Rimik Enterprises answering machine, I finally received a call back from Richard Betson, President of Rimik Enterprises. When I explained the problem to him he said he would get right on it. That was on December 4, 1991. When I had heard nothing from on by the 28th of January, 1992, I gave him another call. At that time I was told "the Beta Tester has it. I will talk to him and get right back with you." Today is February 12 and I'm still waiting for his call, and since Frank needs to receive this review by the 3rd of March I'd better wrap it up.

In the "liner notes" on the back of the *MultiGEM* manual Mr. Betson says, "I have been using *MultiGEM* on my Mega 2 computer and have tested it with many of the programs used by Atari professionals today. Programs like *Calamus, PageStream ... Word Writer ...* , and many more. Let me tell you," he goes on to say, "it is great to have the programs you use the most on your screen running and ready to use." Yeah, right.

In closing, I would like to say this about *MultiGEM*: Caveat emptor. Let the buyer beware.

Midwinter II
Flames of Freedom

by James Parker

I've been playing this new game from Rainbird Software for a couple of weeks now, and I really *want* to love this game. It's got the right things going for it: a million square miles of accurately mapped 3-D terrain, interesting game play, 22 different modes of transportation, 40 islands to explore, flight simulator, tank simulator, submarine simulator, strategy war game, and role playing all in one.

The reason I can't love this game, however, is the disk access. It's a constant nuisance. The game comes on three copy protected disks, but back-ups can be made with the program's built in disk copier. You can't install this on a hard drive, and the reasoning behind this is that Rainbird said there were not enough hard drive owners to warrant it. Remember, Rainbird is based in the U.K. and the average ST user there can't afford a hard drive—a 40 Mb drive goes for $700. So, you are stuck with long and frequent disk accesses, a lot that seem unnecessary. If *Midwinter II* is such a pain, why am I still playing it? Because it's addicting.

The Scenario

The scenario is thus: You are a field agent/spy for COBRA. Your job is to liberate as many islands as possible before the evil Saharan Empire invades your home island of Agora. Without other islands to aid you, Agora is doomed. You have approximately 6 months before the Saharans launch their invasion. You'd better work fast!

Preparing for Your Mission

After loading the game, choose the method of control you want: mouse, keyboard or joystick, then correctly identify two members of the Secret Police to pass the game's copy protection. Next, you are given the choices of visiting the Personnel Room, Training, Control, going on a Raid, or to the War Room.

Create Your Agent

The personnel room should be your first stop, as this allows you to create your own agent, or you can use the existing one. You can create your agent to be either male or female, white or black. Facial features are changed ala Mac-a-Mug and you can add mustaches, beards, and glasses. Once you've decided on the sex and looks of your agent, you can change his or her psychology. There are eight traits identified, from charm, sex appeal, bribery, threats to pleading and lies. Naturally, you can't be great at everything, and the program automatically adjusts the balance. For example, if you want to be a lady (uh, man) killer, and you boost your sex appeal to the max, your reason trait is lowered. You also get to adjust your physique. Your reflexes, sturdiness, endurance, recuperation, and stamina can all be adjusted, with the same computer-aided balance. After creating your super agent, you can save him to disk. You may have up to 12 different agents on file from which to choose, but once a mission or campaign is started you cannot switch.

Learn to Drive

The Training room allows you to try your hand at driving any of the 22 modes of transportation, including swimming, scuba diving, on foot, tanks, helicopters, trains, buses, jeeps, submarines, speedboats, ships, and even parachuting. You can also jump right into a firefight, flying a minisub. This is not part of a real mission, but gives you the opportunity to see what you are in store for once you really do hit the beach.

Liberate an Island

If you want to try to liberate a single island, you can choose Raids. This is not part of a campaign, so islands liberated this way are not cumulative. When you select raids you are given the choice of difficulty level, from Novice, through Intermediate to Experienced and Expert. This will govern the number of secret weapons you start off with, from a lot for novice, to none for expert. Most Raids can be finished in one playing session and are complete games in themselves.

The War Room

Here is where you start a new campaign, load an old one, or back up your original disks. In a Campaign, you must liberate as many islands as possible, as quickly as possible, before the Saharans launch their invasion. The more islands you have on your side when they do invade, the fewer you will have to fight once they reach your home island of Agora. No matter what, the Elite Units of the Saharans will reach Agora. Just make sure there aren't too many!

Start Your Campaign

Once you have chosen your agent, done some training, and gone on a raid or two, you are ready to start your campaign. You

can start a campaign immediately, but I don't recommend this. At least try a raid to get the feel of things. Go to Control, as he will brief you on the island you have chosen to liberate, as well as tell you names of contacts once you arrive. Time to the island, mode of transportation once you get there, weapons provided, and a map are all included in Control's briefing. To help you in selecting your island you can access a strategic planning map. This allows you to simulate liberating different islands. Some islands, once liberated, will cause a chain reaction and liberate others. You can also simulate the Saharan invasion to see how your strategy is working.

Now the real game begins. Your objectives may require you to enlist the aid of certain people, sabotage enemy installations on the island or on the bottom of the sea, perform assassinations, rescue hostages, seize documents, or destroy enemy squadrons.

A Million Miles to Explore

The game playing area is all done in first person perspective 3-D landscape and with over a million square miles to explore, you can see why the game can be so addicting. All buildings, people, and vehicles are accurately rendered and easily identified. When sabotaging enemy headquarters, you wouldn't want to accidentally blow up a church would you?

Night and day play a factor in how easily you slip through enemy patrols, and your infra-red glasses help you to see at night. When you are swimming, or in a surface craft, you bob up and down in the waves. The surf washes in and out on the beach, and crickets chirp at night. All this adds to the realism of being there.

Immortality?

But, taking away from that is the fact that you can't be killed. At least I haven't been yet. You are given a supply of energy reserves. Once they are all depleted, you will black out and be forced to rest. You can also be injured. The parts of your body that are injured determine which activities you will or will not be able to do. These heal with rest, and from the first aid you may be given from your contacts.

Remember, time is the important factor. You don't have a lot to waste. Still, when the missiles are exploding all around, you can't help but think, "Man, no one can survive this!"

Disk Access Detracts from Play

Function keys are used to call up different options, or to activate special actions, like talk to people, grab an object, or leap onto a vehicle, or even from one to another. This is where the disk access really slows the game. Every function key brings up a picture of what you are accessing, and a tune plays while the drive spins on and on and on... You get the idea. Fortunately, you can toggle on or off the music.

There is an Autoroute function that helps speed up the game in some instances. After accessing the map, you can set a route to follow, with up to 100 different markers along the way. This keeps you from having to constantly access the map to see how close you are to your destination. After setting the autoroute, you can go into quicktime. This speeds the journey up considerably, unless there is "excitement detection," in which case you will be dropped out of quicktime and back to the 3-D landscape. Still, disk access occurs, and screen redraws detract from smooth game play.

Another incredibly distracting problem is that in the heat of battle, as you are blasting enemy units, the disk will spin, a pretty picture of a scorpion inside a ring of fire will appear, and finally you will be told that you have destroyed Captain So-and So's squadron. This seems to take forever. A simple message flashed on the bottom of

the screen would have sufficed, and saved much time. Even resting, checking your notebook (which is automatically updated on whom you've contacted, etc.), checking yourself for improvements in a psychological trait, accessing your secret weapon(s), or saving the campaign involves the process of a picture being loaded in, a tune playing, and the disk spinning relentlessly.

Beware of Strangers

When you meet someone, you need to be careful. Some will offer their help immediately. Others will help you only if their conditions are met, such as assassinating someone, rescuing a friend, or enlisting others first. Or, you may have to persuade them to help. Here is where your psychological traits come into play. Are you good at bribery? Or should you lie to them? Charm, threats, and other options are available, although sex appeal is limited to use on members of the opposite sex.

The worst case is when your contact is a traitor. You are then turned over to the secret police (after the picture loads in, the tune plays, and the disk spins) and imprisoned. Escape is the only alternative, but if you are still there after 20 days, you will be rescued. This time penalty is disastrous for your chances of liberating enough islands before the invasion. You may try to fight your way out, bribe the guard, or seduce him or her (if of the opposite sex). All guards have a distinct personality and weaknesses, some more than others. Once a traitor has betrayed you, he will never betray you again. He will offer his help freely. This is because all traitors are cowards, and are afraid of your taking revenge. After getting all the help possible out of traitors, I usually kill them anyway. That will teach them!

Gifts for the Victor

After completing each objective, Control appears (after the picture, tune, and spinning) and informs you of this fact. Once all objectives are complete, Control appears and tells you the island is liberated. The citizens of the island bestow gifts on you, and give you a secret weapon to add to your arsenal. These can only be used once, but are very powerful and can take you directly to your next objective, destroy all enemy units around you, or persuade anyone you meet to help you, traitor or not.

I have yet to realize the significance of the mission bonuses awarded to you for destroying squadrons, or liberating islands. You can't buy anything with the money. I guess it's a score of sorts. I sure wish you could buy secret weapons with it!

Before starting on another mission, you must return to Agora for rest and recuperation. This is a minimum of 5 days, but if you are wounded the time can be longer. When you are fit, you can report back to control for a new assignment.

An "A" or a "C"?

Flames of Freedom is among the top ten games in the United Kingdom. In October, *ST Format*, an ST magazine in the U.K., reported it as number one, and gave it a 92% rating. I can't see giving it such a high mark. Although the game is great, its only flaw is the long and too frequent disk access. I'd say give it 75%.

Flames of Freedom was tested on a 520ST with 2.5 megs of RAM, and TOS 1.0, and a Mega STe with 4 megs of RAM and TOS 2.05. *Midwinter II: Flames of Freedom* is by Rainbird Software and retails for $59.95.

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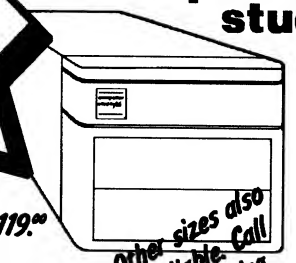

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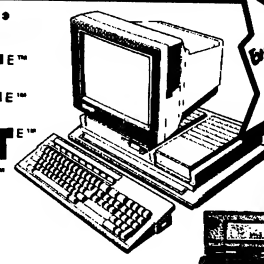

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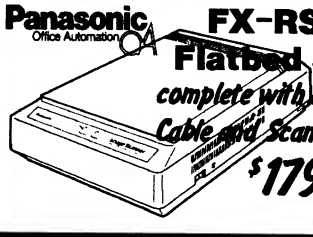

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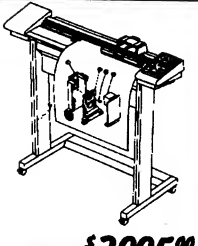

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MOS Disk Utilities, v. 1.0

Some Useful Programs, But Caveat Emptor

Review by John Godbey

The *MOS Disk Utilities* is a set of utilities for both hard and floppy disks. Over a dozen disk programs come on a non-copy protected disk. Also included is a 47 page manual which describes each of the programs, and gives some basic information about how data is stored on disk drives. The programs are designed to allow the Atari user to do things such as repair damaged directories, files, or file allocation tables; to defragment drives, to undelete deleted files, edit sectors, and so on. If you have a hard disk, you need programs like these, and this is the only set I know of that will work with all brands of hard drives.

For this review I tested as many of the programs as possible, though some can't be adequately tested unless your computer exhibits the specific faults they are designed to correct. In general, the programs are easy to use. When run, they give you clear menu choices, if appropriate, and clear warnings when warnings are appropriate.

AutoSaver and Safer Zero

These programs are designed to make it easier to recover from certain types of data disasters, like an accidental deletion. The manual is vague on just how they work, saying only that a special information file is written to the disk. *AutoSaver* is a program that can be put in the boot directory of your drive and configured to automatically create the data needed to later recover files. It can be set to create the data as often or seldom as you wish—e.g., every time you boot your computer, every third time, every day, every week, or whatever. Since the settings that work on time depend upon your computer's internal clock being set at boot-up, the disk includes a little utility called *Set Clock* to do just that.

Safer Zero is a program for erasing a disk or partition easily, while at the same time creating the data to allow for recovery of the files at a later time.

I tested both of these programs, and both seem to work. However, both would occasionally bomb for no good reason.

UnZero, Fix-A-File, and Fix-A-Disk

These three programs are supposed to recover accidently deleted files. *UnZero* is designed specifically to work with files that have been protected with *Safer Zero or AutoSaver.* I was unable to get this program to run, much less work.

Fix-A-File, however, worked fine for me. If a file has not been written over, but only deleted, this program will un-delete it. *Fix-A-Disk*, however, is somewhat buggy, and I recommend using it with caution.

BadMap

Surprise!—a bad sector marking program. It appears to work—it marked the same sectors on my hard disk as bad that the Atari *Markbad* program had marked as bad. I was unable to see any advantage it has over the Atari program.

Fix-A-FAT

This program regenerates the file allocation table (FAT) on a disk. FATs are the tables on a drive that show which clusters are free and which are being used to store data. These tables can become corrupted, and if they do this program is a life saver.

Several months ago, I tried to save a file to Drive E: on my hard disk, and received a message stating that I had insufficient room. I knew this couldn't be true; there should have been plenty of room left in that partition. But the room had disappeared. Something bad had happened to my drive, but I wasn't sure what, or when. I ran Fix-A-Fat on my hard drive, and recovered over 9 megs of memory that had been incorrectly marked as used when they were not. I now run this program periodically just to make sure that nothing strange is happening to my drive.

Folder Sorter

Yet another program to sort the order of programs on a disk. It beats copying them to floppies and recopying them to the hard drive. A useful program if you don't already have a sorter.

HD Check and HD Speed

These run a few checks on your hard drive to see if it is in working order. I ran these programs, but since my drive is working, I am not certain if the programs can really catch anything useful.

Skwoosh

This program is a defragmenter. As you write to a disk, then delete, rewrite, and so on, your files become fragmented—that is, they are not written to contiguous sectors on the disk. When the fragmentation becomes bad enough, access time is slowed down, and your drives are subject to unnecessary wear. This program seems to work,

but I urge you to heed the warning in the *MOS Disk Utilities* instructions: Defragmenting is always dangerous. Only use this on disks or partitions that have been backed up! When running, this program will have parts of several files in memory at the same time; unexpected problems, like those that can arise from power glitches or lose cables, can spell disaster for those programs being defragmented.

I defragmented my drives and it resulted in a noticeable, if modest, improvement in bootup speed—about 4%.

ReFormat

ReFormat allows you to reformat a floppy without losing any data that are on it. This is supposed to allow for recovery of data on old disks that cannot be read by normal means. I have not been able to verify that you actually can save old disks with this program since none of my disks have the problems the program is designed to correct. A program called *ReWrite* performs a similar function for hard drives. Hard Drives are not actually reformatted, but the data are read off and then re-written. According to the manual, it should be able to recover some data that would otherwise be lost. Again, I have not been able to confirm that this program can really recover lost data.

Wipe-It!

Ollie North could have used this one. It permanently erases data so that it cannot be recovered by any means. I can't guarantee that it can't be recovered by any means, but I certainly was unable to recover data from a disk which had been "wiped."

Drive Status

This program will give you a screen full of information about your drive—its speed, sectors/tract, number of heads, location of FAT, used clusters, etc.

Conclusions

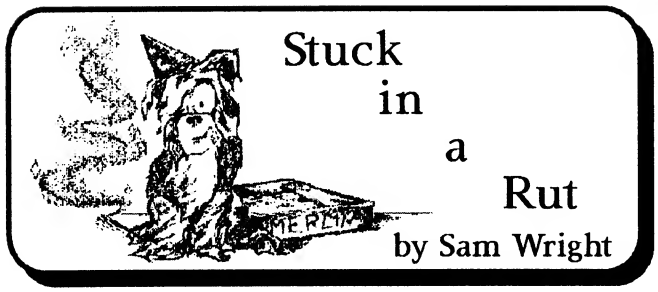
The *MOS Disk Utilities* disk should have two additional programs: *DiskEdit*, a disk sector editor, and *MultiFinder*, a program to search disks for files containing certain character strings. Neither was on the disk. According to the ReadMe file, they were to be shipped to me after I sent in my registration card. They were not. In addition, the disk contains a shell program to use for launching the others. I was unable to get that program to run.

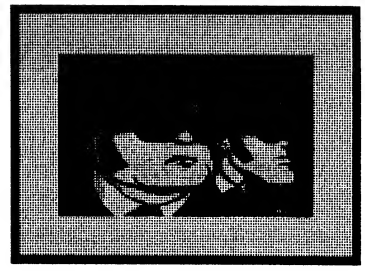
Over the past few months I have sent several letters to Maximum Output Software to try to get the missing programs, and to find out why I was unable to get *UnZero* or the shell program to run. They have not been answered, nor have I been able to reach them on the phone.

So what we have is a mixed bag, a situation sadly common for the Atari these days. On the one hand, some of these programs are excellent, and have little, if any, competition in the Atari market. But some of them simply don't work. And some of them that do are buggy and can crash unexpectedly. Furthermore, the user is probably not going to get any technical support for them from their distributor.

If you have a hard disk, these programs can be very useful. But caveat emptor.

[*Maximum Output Software, 5510 Spanish Oak, Houston, TX 77066.*]





The Blues Brothers

Good, faithful arcade games based on outside material (movies, TV shows, novels, matchbook covers) are few and far between. Oftentimes, games seem to be slapped together to capitalize on the current popularity of their subjects. And when a new fad emerges, the same game appears with different characters. The idea of the game, packaged to sell by a blurb and sleek screen shot, is much more important than the quality of the game. When you get the game home to play, you may convince yourself you like it, either because you need to justify the cost or because you liked the material it was based on. In arcade adaptations, the concept frequently overshadows the actual game.

(This is to say nothing about the cost of the game licenses. You'd think most of the money goes to the owner of the copyright than to the programmers and development.)

This problem rarely exists in adventure adaptations (they take too long to produce to be timely enough to hop on the trend du jour). *The Hitchhiker's Guide to the Galaxy* and *Indiana Jones and the Last Crusade*, for example, are excellent adaptations of outside material (the latter is even a good arcade game, too). But that's also because they contain plots and stories that can be fleshed out with you as the main character. Somehow I can't envision a Jean Claude Van Damme character in anything but an action game, doing anything but kickboxing.

Action films and the like are easy to convert into a generic arcade game. To a loose backdrop of the movie, you play the hero or heroine and fight the bad guys to get to the treasure/distressed damsel/brass ring. It's been done hundreds of times before, with varying degrees of success (usually depending on the popularity of the material in the first place).

Then there are the games, like Titus Software's *The Blues Brothers*, which have nothing to do with their source material except for lifting the original characters for notoriety's sake (or exploitation's sake). *The Blues Brothers*, the game, has nothing to do with "The Blues Brothers," the 1980 John Landis cult film, other than containing Jake and Elwood sprites, the music from the soundtrack, and a location or two.

In the movie, Jake and Elwood Blues, on a "mission from God," round up the old Blues Brothers to raise $5,000 to save the orphanage where they were raised. In the game, the Blues Brothers must round up their stolen equipment before they can play one more gig. The motivation is less inspired in the game: the brothers Blues are out for profit this time 'round.

That Titus elected not to include a rehash of the movie's plot (though when you think about it, it *is* a loose rehash of the plot: instead of searching for Blues band members, you're searching for Blues equipment, all culminating in the biggest ... er, second biggest concert Chicago has ever seen) was perhaps a wise choice, because surprisingly, *The Blues Brothers* is an excellent game. And it would still be an excellent game without Jake and Elwood.

The game begins once you select whether you want to be Jake or Elwood by creative use of a spotlight. While the two characters are different in appearance (they even look like caricatures of John Belushi and Dan Ackroyd, right down to their way-cool shades and thin ties), both function the same. I preferred Jake because, subliminally, he seemed more easily able to duck bullets, being that close to the ground already. Elwood seemed too tall, making him an easier target.

A map of the city is then displayed with five locations (including a shopping mall, chemical plant, jail, and construction site), each containing one piece of stolen musical equipment (guitar, microphone, amplifier, concert poster, and concert permit). An "X" shows where you've been already and a musical note shows where you're headed. You must find the piece of equipment stashed somewhere in that location before proceeding to the next. Alas, games are not saveable, and you must go through each location in order. To add to the frustration factor, each level is slowly loaded in from disk, even if you're killed off on the same level.

Each location in this platform game sports sharp, crisp, and detailed cartoon graphics, with not a hint of flickering. Each screen scrolls into part of a larger area, averaging 60 screens per location.

Movement is extremely quick, thanks (or no thanks) to the fast scrolling. As you move past the middle of the screen, horizontally or vertically, the screen scrolls just a bit. This just a bit is sneakily taken advantage of by Titus, usually by providing your place of death just after the just a bit of screen you can't yet see. A better and fairer game might have resulted from continuous and smooth scrolling. As it is, the choppy scrolling becomes one of your adversaries, contributing to the unnecessarily frenetic scenery movements.

(Continued on Page 72.)

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It's this scrolling that provides the biggest drawback of the game: two-player mode. Both Jake and Elwood are in action simultaneously and cooperate to find the missing equipment. They assist each other in fending off the bad guys. What happens is that when one runs off the screen, the other is left behind ... and you don't see him or his fate until he catches up. But how can he catch up if you can't see him? A better implementation would've been a horizontal split screen like the old 8-bit *Spy vs. Spy* game.

There are no time limits or points or score in *The Blues Brothers*, not even for knocking off the bad guys. Just collect each piece of musical equipment from each level and the band will be satisfied. You start off with three lives of three hearts each. Each time you're hit by a bad guy, you lose a heart. When you lose all three hearts, you lose a life. Throughout your adventure, you'll find bonuses such as extra hearts and extra hats and sunglasses (extra lives). Vinyl records (this game is dated already!) can also be found. Collect 100 of those and get an extra heart. Collect a broken record and 10 records times the level you're on are deducted.

As Jake or Elwood, you run (you never walk; you RUN), jump, crawl, climb, bounce (on a spring), fly (with a helium-filled balloon), and float (with an umbrella, Mary Poppins-style). And all are performed to maximum comical effect. When Jake jumps, he holds onto his hat. When Elwood grabs onto a balloon, his legs are splayed. When either are immobilized, they do a little jig. And when crawling, pretty much only their hats are visible.

Controlling your character, like the screen scrolling, is very fast. Joystick responses are sensitive and quickly responsive. As the frantic pace picks up from level to level, a light touch is necessary to get out of the increasing number of traps and pitfalls. Unfortunately, I didn't have a light touch and broke my joystick at level three, giving me an opportunity to use the keyboard. Unless you end up breaking all your joysticks, try to avoid keyboard control. It's limiting and not very forgiving, particularly at points where you need to jump diagonally without moving horizontally first. Also, it's easier to replace a joystick than a keyboard.

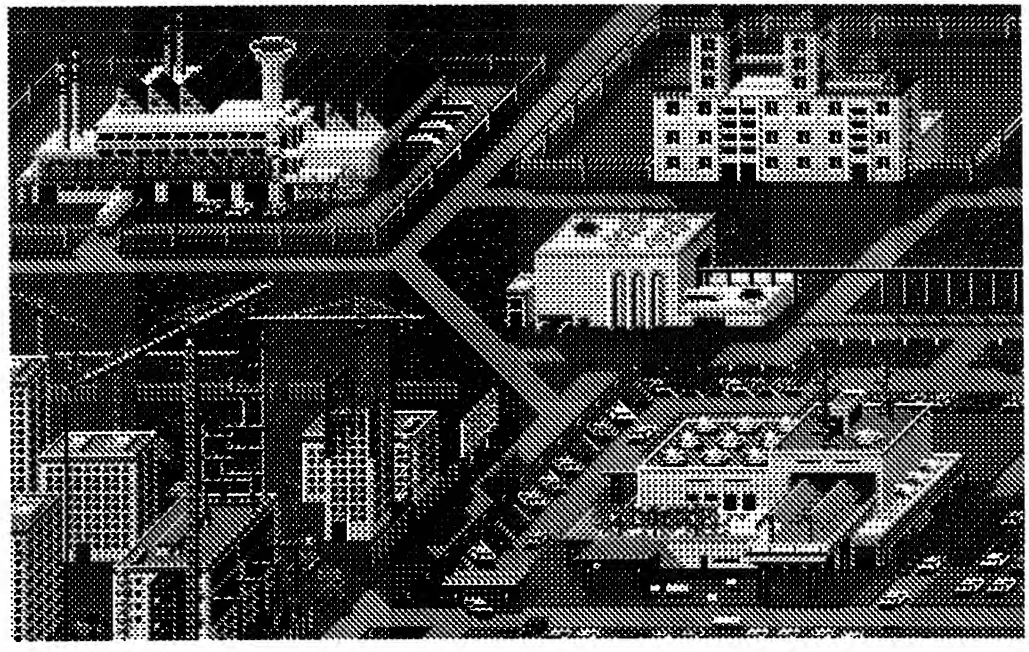
Since the Blues Brothers are not violent people, they don't carry firearms. They have, however, been working out recently, so picking up one of the many crates scattered across the city and tossing it at an evildoer is a simple process, and a successful hit knocks the bad guy right out of the game. Otherwise, they avoid confrontations by jumping over the evil guys or ducking their gunfire.

Being on a mission from God, Someone does seem to be helping you along in certain instances. You're able to breathe under water, walk on clouds, and jump any distance without being killed. Also, there's no randomness in the game. The musical equipment is always in the same place, the question marks (which may add records, deduct records, or shock you into dancing) are always the same, and the villains can be depended on to be in certain places and not to be in other places.

The villains are a riot to look at. My favorites are the fat mice and the grannies in shopping carts. Most of the early bad guys patrol various sections, moving back and forth as if guarding territory. In later levels, they come after you. Except for the flimsiest of connections to the movie (the policemen, the waitresses), the villains are new creations.

If you're looking for a faithful adaptation of "The Blues Brothers," you won't find it here. However, if you're looking for an excellent platform arcade game with a blues soundtrack that happens to star Jake and Elwood, *The Blues Brothers* will more than slake your curiosity.

[The Blues Brothers ($34.95), from Titus Software, runs on all color Atari STs and comes on one single-sided, copy-protected disk. It cannot be run from a hard drive.]



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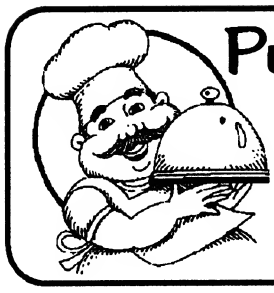


Public Domain Potpourri

by Brian Miller

PD Software for the Portfolio

Remember those Atari ST ads of old? The ST was often touted as the computer for the rest of us. In other words, if you didn't have the bucks to shell out for a Macintosh, you could enjoy power without the price with an Atari ST. An equivalent claim might be made for the Atari Portfolio. As a palmtop, it does not have all the bells and whistles of Hewlett Packard's tiny computer. However, the Portfolio costs half as much, and its keyboard is much less of a joke than HP's Palmtop. In fact, with a little practice, you can cultivate a modified form of touch typing with the Portfolio.

Santa was kind enough to bring me my Portfolio this past Christmas, and I have been a satisfied user since. While the built-in applications meet most of my needs, I have been delighted to find a wealth of public domain and shareware programs that have extended my enjoyment of my Portfolio even further.

Since the purpose of this column is to discuss public domain and shareware software, I hope that you won't mind if I acquaint you with a few of the programs, which I have added to my Portfolio collection of software. I will also make these programs available to the Current Notes Library.

XTERM2

The Portfolio comes equipped with built in software that lets you exchange data with an IBM compatible, using the Portfolio's smart Parallel Interface. *XTERM2*, a simple communications program for the Portfolio, delivers the same capability to ST owners. You can transfer files to and from the Portfolio with the Portfolio's Serial Interface, and a null modem cable. *XTERM2* can transfer files using the xmodem protocol and can handle text files as well.

You can use your favorite telecommunications software for the ST to complete the link. If you don't own *Flash* or another commercial product, why not try one of the shareware programs available in the CN Library. *VanTerm*, disk #381 would be a good choice.

If you already have the Parallel Interface, you can use the file transfer software to move *XTERM2* to your Portfolio. If you don't, you will need to find a friend or accommodating merchant to transfer this program to your Portfolio.

LZEXE

One shortcoming of the Portfolio is that without a RAM Card or expansion of internal memory, you will find that you inevitably run out of room. A RAM Card is highly recommended to not only provide more room, but also to permanently secure data. The Portfolio's RAM Disk is considered volatile memory. If your batteries drain, or your computer completely locks up, any data saved on the C drive can be lost.

LZEXE significantly increases available storage space. It compresses executable program files by as much as 50%. This French program is designed to work on IBM compatible machines. You can use *LZEXE* to shrink Portfolio programs before transferring them to the Palmtop. Obviously, you can also use *LZEXE* to compress your PC's programs too. Until the cost of RAM cards or additional memory drops, *LZEXE* provides an inexpensive way to stretch storage space.

PORTPART, by David Becker

Portfolio Partner is an ST Address Program that is file compatible with the Portfolio's built-in Address application. You can use *PORTPART* to build or expand a common database that you would use with both your Portfolio and ST.

Not only would this be a nice convenience, but you could use your ST's full sized keyboard to enter addresses. This might be especially handy, if you were to find the Palmtop's keyboard too tiny to use for extensive typing.

GUICHESS, by J.A Turnquist

I found a surprising number of public domain and shareware games for the Portfolio. Of all the games I have tried so far, I have been most impressed by *GUICHESS*. As the name suggests, it is a chess game which pits you against the computer. The chess pieces are easy to distinguish and the play action is smooth.

I can assure you that I am no match for my computer opponent. Victory appears to be out of reach, so I have had to measure my progress by how long I can hold out, before the computer declares checkmate. The game keeps track of the game time, so I am visually reminded of my poor performance.

GUICHESS is 16K in size. However, *LZEXE* was able to reduce the program to slightly under 10K. For ST owners with megabytes of RAM and disk space, saving 6k of space may hardly seem worth the trouble.

Portfolio users know better. The Portfolio has 128k of RAM, 32k of which is typically set aside as a RAM disk. Since a 32k RAM card retails for around $70, 6k is equivalent to $13. I'd be inclined to use *LZEXE* to compress programs even if it weren't easy to use.

I have mentioned only a small fraction of the programs which are available for the Portfolio. Some of the more notable selections that I have also sent to *Current Notes* include: *PBasic*, *TBasic*, *PTOOLS*, *Othello*, and *Blackjack*. *PBasic* has received a lot of attention among Portfolio users.

I've included other programs as well, so chances are you can find one to your liking. You can certainly find Portfolio programs that meet your needs on GEnie and Compuserve. GEnie has dedicated an entire Roundtable to the Portfolio. I have browsed through the GEnie Library, and have discovered that their Library includes an Assembler, a C Compiler, and even alternate text editors.

Learning by Doing

I regret that I was unable to prepare an article for the last issue of *Current Notes*. The truth is I had to complete a school programming assignment that was due at the same time. Not only was I unable to devote time to this column, but I was late in completing my program anyway. Ironically, had I the benefit of Dave Small's illuminating article featured in the February issue while I was trying to code my program, I may have been able to give this column its due. At the very least, I might have approached my program a bit more intelligently.

Dave's 17th Law of Computers asserts that: "They ain't Perfect." I had mistakenly assumed they were, or at least close to it. Time and again I tried to compile my program. Though the program would compile without error, it produced ominous run time errors. Though I could find nothing wrong in my code, the program was unable to read its data file. I searched the manuals for an interpretation of the run time error messages without success. The manual assured me that the abnormal program termination, and null pointer assignment error messages meant that my program was seriously flawed. Since the program would not run, and it often stopped my computer dead in its tracks, I had figured that much out for myself. What I wanted was a hint or clue as to how to fix my program. Desperate, frustrated, and ready to chuck the class altogether, I finally sought the help of my teacher.

I was sure he would easily find my error. I could then add embarrassment and humiliation to my growing list of negative emotions. However, that was not the case. He looked over my code, and could not see why it didn't work. Time and again he tried to run the program, and each time it failed.

With nothing left to lose, we decided to change the name of the function that read the data file. After making that one change, the program worked. In retrospect, I should have given more thought to the name I chose for the function call. From now on, I will avoid names that might even resemble reserved words like the plague itself. However, one would think the compiler would easily flag this type of error, and provide an error message that fit the problem.

With the benefit of Dave's sage advice, I think I am better prepared to meet new programming challenges. While I am sure I will be the culprit for most errors, I have learned the hard way that the computer is not infallible.

I can hardly wait to read Dave's March installment. I'm anxious to read what he has to say about C, since that's the language I am struggling to learn.

I've gone on long enough. If you have been groping for a good reason to subscribe to this magazine, just think of the great advice you would miss, from Dave and the other Computer Wizards who write for *Current Notes*. I enjoy writing for this magazine, but in a fair assessment of my abilities, I don't think I would rate as even an aging, perhaps teetering, Wizard's Apprentice. Until next time, take care!

GEnie
Atari Roundtable News-April
John G. Hartman (JOHN-STE)

Restructuring of the Bulletin Board

Atari ST Roundtable is currently Restructuring the Bulletin board. Categories, Messages and Topics are being moved, added and archived into Library 26. Information on Bulletin board maintance is available in Cat 1, Top 8. Aladdin and Topic lists may need to be reset.

Softsource is Available in Atari RT

Softsource, an electronic product database, is available on Atari Menu [m475;8]. You can get the latest information and demos for TOS-based products available for the Atari ST/TT. Demos are also available within the Atari RT's Library. Bulletin board support is available in Cat 14, Top 24.

Related Library Files:

19517	CATNUM1.TXT	Category Numbers for Softsource
19531	SFTMANLA.ARC	Unformatted manual for Softsource
19530	SFTMANLT.ARC	Formatted manual for Softsource
22621	SFTSCRPT.ARC	Aladdin script for Atari Softsource

New Personnel in Atari Roundtable

GEnie Atari RT adds two personnel to the Staff. John Hartman [JOHN-STE] working in Media and Promotions. Terry Quinn [TQUINN] working in the Bulletin Boards.

Current Atari ST Sysop Staff

Darlah Potechin	[DARLAH]
Sandy Wilson	[SANDY.W]
Fred Beckman	[FB]
Jeff Williams	[JEFF.W]
John Kennedy	[JJKENNEDY]
Larry Duke	[LARRY.D]
Terry Quinn	[TQUINN]
John Hartman	[JOHN-STE]

Atari Corporation Online

Bob Brodie	[BOB-BRODIE]
Dan Mcnamee	[D.MCNAMEE]
John Townsend	[TOWNS]

Contacting Atari Roundtable Personnel

Atari ST Roundtable has special Group Emailing addresses to assist in getting your questions, suggestions and comments. Here is a listing of the Email addresses and areas of responsiblities. Also you can send Feedback to the Sysops by using m475;6 or Email individual Sysops using their Email address.

INFO$ To send questions, comments and suggestions to all Atari RT Sysops, same as typing m475;6 on the menu.

BB$ To send questions, comments and suggestions to the Sysops in charge of the Bulletin Boards.

ST$ To send questions, comments and suggestions to all Atari ST Sysops.

LIBRARY$ To send questions, comments and suggestions to the Sysops in charge of the Atari ST Library.

ADMIT$ For admittance to Category 21 in the Bulletin Board.

PERMIT$ For information and admittance to IAAD category and library.

PORT$ To send questions, comments and suggestions to the Sysops in charge of the Portfolio RT same as typing m950;6.

AT$ To send questions, comments and suggestions to the Sysops in charge of the Atari 8–bit RT same as typing m665;6.

To send feedback to GEnie and Customer Service type FEEDBACK at any menu prompt. You can also use the Email Services Menus by typing m200;13 or addressing Email to FEEDBACK.

Roundtable Help Files

Atari ST Roundtable Help Files are currently being updated and compiled and will soon be available for downloading. Below is a listing of the current Atari ST Roundtable Help Files from Library 1.

19531	SFTMANLA.ARC	Unformatted manual for Softsource
19530	SFTMANLT.ARC	Formatted manual for Softsource
19118	LIBGUIDE.ARC	ST Library Guidelines
11984	BB.HLP	Help file for the Bulletin Board
10480	RAM_IGN.HLP	Read All Marked & IGNore PERManent
9741	RULES_CO.TXT	Rules for formal conferences
9289	IGN_PERM.HLP	How to use the Bulletin Board
9207	COMANDMD.HLP	Command Mode vs Menu Mode help
9154	SETTINGS.HLP	How to set your settings for Genie
8918	LIB_NEW.HLP	Join/Ignore Software Libraries help
7630	YMODEM.HLP	This is a Ymodem Batch Help file
7629	XMODEM.HLP	Help with Xmodem/Xmodem 1–K
7272	ARCUNARC.HLP	Help on extracting and archiving
4805	MAIL.HLP	Help with Genie Mail
4804	TEXTUPLD.HLP	HELP ON UPLOADING TEXT TO GENIE
4795	FILETYPE.HLP	Help on filetypes available Here
4794	GENIE.HLP	Help with Navigating on Genie
4790	UPLOAD.HLP	Help on uploading files to GEnie

Top Downloads in March

22547	ATARIHD5.LZH	Atari Hard Disk Utilities v5.0
22693	MOUSEBT1.LZH	The ultimate boot–up utility
22585	FAZE.LZH	DMJ–Soft's new screen saver. Neat!
22725	BOINKSAV.LZH	Boink–Saver screen saver! Cool!
22550	SILKMSE2.LZH	NOW ShareWare of SilkMouse ST/TT
22689	SEEKER.LZH	Gold Seeker, arcade game (lode runr)
22610	MULTLANG.LZH	MultiLanguage Translator DA
22722	RHOCONTR.LZH	Nice control panel from Switzerland
22590	FUJIM141.LZH	FujiMaus with Park!
22714	SEARCH11.LZH	Alad. File Searcher v1.1 med/hi rez

Current Notes ST Library

January/February 1992

640: System Disk 1. For 520ST owners, everything you need to ARC and unARC files.

641D: System Disk 2. For 1040ST/Mega owners, everything you need to ARC and unARC files plus SuperBoot and more.

642D: System Disk Archives. Complete archives for disks 640 and 641.

643D: Utilities. CartHold, Cookies, DBEyes, EDDA.ACC, EDM Shell 2.20, Pathmap 1.0, N–Desktp, Nosey, StdCat50, TLC Programs (TLC–Atr2, TLC–Book2, TLC–Form2, TLC–Fxr2, TLC–Namr2, TLC–Play2, TLC–Show2.

644D: Write-On Demo. PD scrolling demo of the Write On! Req 1 MB (M).

645D: Copilot. Runtime version of eSTeem PILOT, an authoring language for creating tutorials, drills, tests, interactive dialog, games, and simulations.

646D: Arcade Games. Noids V100, Demolition Man 2.0, 3–Shoots.

647: GP Edit Demo Games. Games are fully playable and illustrate the power inherent in the GP-Edit package. Bobble, MS.Pac, and MultiGame (Worm, FireCop, Megapede, Breakout, and Setrys.)

648D: Commercial Demos. Data Diet, EdHak Ver 2.2, MultiDesk Deluxe, Word Search Creator, Crossword Creator II, and MIDI Spy.

649D: Finance. Checkbook, Stock->Smart, V2.1, and MEGA-Check.

March 1992

650D: GFA Expert. Your Second GFA-BASIC 3.0 Manual, 2nd Edition. by Han Kempen, The Netherlands. A 120+ page manual.

651D: Utilities. AtariHD5, The latest official Atari Hard Drive Utilities, DiskLock, Faze, FujiMaus, JumpSTART 2.0, Mouse Boot, PinHead 2.1, and XBOOT Demo.

652D: Utilities. EDM Shell V2.21, LzhShell, ST ZIP v1.1, Super Boot V7.4, and Thrash.

653D: Astronomy. GnomPlot v4.2 and Satellite Prediction Program V4.04.

654: 21/CAMELS. 21 (blackjack game for one player against dealer), Camels (whacko shoot-em up). (C)

655: AMMOTRAK/GOLD SEEKER. AmmoTrak (high-speed graphic game), Gold Seeker (Going beyond Lode Runner, this game has moveable trap doors, exploding bombs, diagonal slides, moving sidewalks, controllable force fields, and an elevator.

656D: TRIPLES/ROBOT REPAIRS. Triples (game of matching three-of-a-kinds and solving rebus type puzzles), Robot Repairs (Demo, enter Robot in minaturized probe and collect deadly virus crystals. (C)

657: Name Brand Clip Art. 50 logos from name-brand products. (IMG)

658D: Language Helper. MultLang (provides translation between German/English words. Includes large dictionary.) SpellOne (spell-checker for the Atari ST) AbbreV11 (Demo of Abbreviator ST accessory.)

659D: Utilities. 2Columns, BootTyme, DC Reserve, Edi-Util, FileTool, Fishes, FujiWatch, GoGoST42, K–Text V1.6.4, Lock, NBM, v1.2, RAM–Test, ShowMem4, SilkMouse2, StarSaver V0.50, WhatIs57

[Order disks from CN Library, 122 N Johnson Rd, Sterling VA 22170. Disks are $4 each (10/$35) plus $1 S&H for every 6 disks.]

Current Notes Magazine
Of, By, and For Atari Users

In its early years, *Current Notes* was a publication from a consortium of Atari User Groups in the Washington, DC, area. While Current Notes, Inc. is now a private venture, publisher Joe Waters and his largely volunteer staff continue to keep their focus on the Atari user. *CN*, as always, is on the lookout for a few good Atarians who would like to help CN enhance its ability to serve more of the Atari community. Perhaps you can help in one of the following areas:

Reviewers - There is always a need for people who can write well and who have the technical competence to evaluate all kinds of Atari software.

Departments - The Telecommunications, MIDI, and Spectre departments have been largely dormant for the last couple of years. People who have an interest in these areas could make a real contribution by sharing their knowledge. All three areas significantly expand the power of the Atari, but present a challenge to novice users. Knowledgeable users could perform a real service by helping to remove some of the mystery from these subjects.

Correspondents - While individual CN staffers make cameo appearances on the online services, there is a real need for people to digest the traffic, analyze trends, and follow up on developing news. While *CN* works with the online magazines in a "wire service" mode, its monthly publication schedule requires better packaging of the news from the services (and from any other source of news, for that matter).

Librarians - *Current Notes*' disk library is perhaps the most comprehensive collection of PD software and shareware available to the community. There is a need for additional help in assembling the material that comes into the community each month, validating it, and providing the additional documentation that is needed for disk distribution.

Joe Waters designated 1992 as the "Year of the Atari User" in the Jan/Feb issue. It seems appropriate to let the user community know that individual contributions to this independent forum, devoted to the interests of the Atari consumer, are more than welcome.

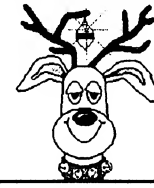
Prospective authors can submit samples of their work to Current Notes (address below) or via GEnie to JOE.WATERS. *Current Notes* can be reached by telephone (voice or FAX) at 703-450-4761. The business office is manned during the day, but editorial matters are best discussed in the evenings and on weekends. Mail and package deliveries should be addressed to Current Notes Inc, 122 N. Johnson Rd, Sterling, VA, 22170.

CN #159D
50 Misc PI3

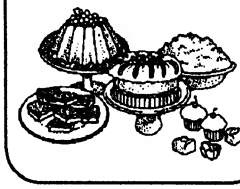
CN #160D
60 Animals, Headers, Holidays

CN #247
24 Sports Pictures

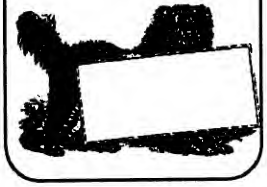
CN #248D
62 MacArt Pictures



CN #249D
50 Food Pictures

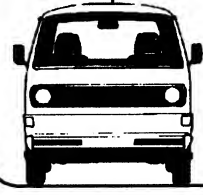


CN #355
19 IMG Mortised Cuts



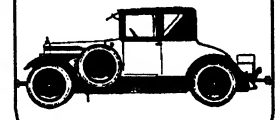
CN #442D
24 Animals (IMG)

CN #454D
42 Transportation



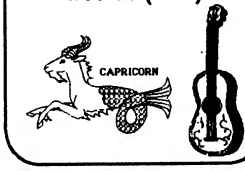
CN #471D
37 People

CN #521D
28 Old Cars (IMG)



CN #522D
55 Cartoons (IMG)

CN #523D
49 Egypt, Music, Zodiac (IMG)



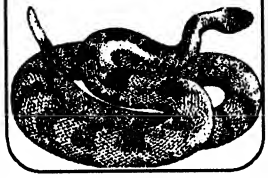
CN #524D
24 High Res (IMG)

CN #600D
20 Christmas PI3

CN #601D
20 Christmas PI3

CN #602D
20 Birds PI3

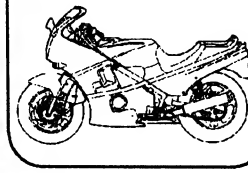
CN #603D
20 Reptiles PI3



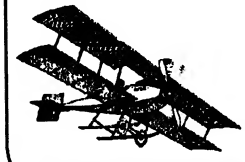
Current Notes
Clip Art Library
All of these disks are also available on the new CN DTP Cartridge.

CN #604D
20 Cars PI3

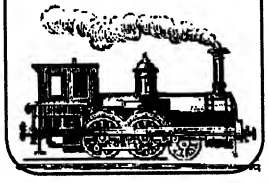
CN #605D
20 Bikes PI3



CN #606D
20 Planes PI3



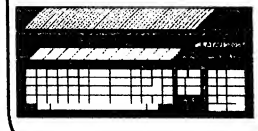
CN #602D
20 Trains PI3



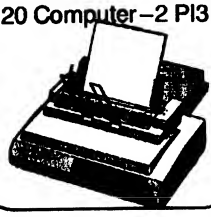
CN #608D
20 Boats–1 PI3

CN #609D
20 Boats–2 PI3

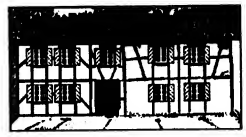
CN #610D
20 Computer–1 PI3



CN #611D
20 Computer–2 PI3

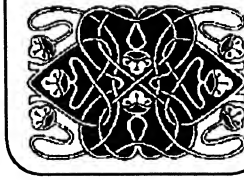


CN #612D
20 Buildings PI3

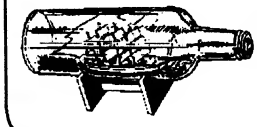


CN #613D
20 Ornament–1 PI3

CN #614D
20 Ornament–2 PI3

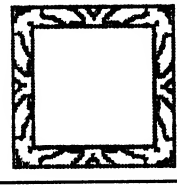


CN #615D
20 Ornament–3 PI3



CN #616D
20 Ornaments–4 PI3

CN #617D
20 Frames PI3



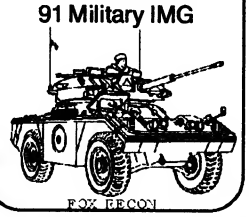
CN #618D
20 Cars–2 PI3

CN #619D
20 Signs PI3

CN #657D
50 Name Brands IMG

CN #660D
68 Wild West IMG

CN #661D
91 Military IMG



CN #662D
44 Police IMG

CN #663D
30 Teddy Bear–1 IMG

CN #664D
30 Teddy Bear–2 IMG

CN #665
30 Teddy Bear–3 IMG

CN #666D
43 ESG Samples IMG

CN #667D
69 Kids, School IMG

CN #668D
95 Caricatures IMG

CN #669D
46 Miscellaneous IMG

CN #670D
PICTURE PACKER
Picture compressor, convertor, and a graphics editor all in one package.

CN #671D
CRACK-ART
Shareware drawing program from Germany, with many sophisticated drawing features. Docs, however, are

CN #672D
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Here are 125 diabetic recipes for use with included Assistant Chef program. (Color)

CN #673D
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Best terminal program for the ST. Full featured complete with users guide.

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CN #676
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CN #677D
Mathematician's Helper
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CN #678D
SPICE
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CN #679D
SOZOBON C V1.33i
An ideal way to get acquainted with this popular language. Includes docs.

Current Notes ST Library
New Disks for April
The 20 disks listed above are all new with this issue. CN disks are $4.00 each (10 for $35) plus $1 for every 6 disks for shipping and handling. Order disks from CN Library, 122 N. Johnson Rd, Sterling, VA 22170. VISA and MC accepted. Call (703) 450– 4761.

CURRENT NOTES is pleased to announce
CN Cartridge No. 5
Desktop Publishing
44 MB of clip art, fonts, and graphic utilities. This cartridge includes all of the clip art in the CN Library, plus 105 fonts for Calamus, and loads of graphics utilities. Price is $199.95 plus $4 (S&H).

CN #432D
Calamus Fonts 1
Bodoni, Chancery, Chrome, Cursive, Dingbats, Drurylane, Gaudy, Gillia, Revue, Souvenir M, Savings, Spokane, Study, Windy.

CN #469D
Calamus Fonts 2
Advertising, Architect, Barnum, Broadwan Engraved, Casual, Celtic, Fancy Chancery, Flash, Harloe, Mouse,... Schoolbook, ST–Franc, Tiphany, Western, Windzor.

CN #552D
Calamus Fonts 3
Horstcap, Leecaps, Lucifer, Medici, Pirates, Tiempo, Zalescap + GEnie messages.

CN #556D
Calamus Fonts 4
Glip fonts (Roman, Oblique, Bold, Blod Oblique), Rockside Book, Marcella + Calendar, Acuransx, The Gunth, Gillieps.

CN #581D
Calamus Fonts 5
Bernard Tangle,Absolute, Talansty, Windsord, Upperwes, Uncialds, Recycle, Galleria, Roosthvy, Hotshot, Fundrunk, Diego, Chilpepr, Mnin6 + Fontview and

CN #631D
Calamus Fonts 6
A–Logo, Diane, 3 Hebrew fonts, Krazy, Moscow Regular, Premier Lightline, Showboat, Tiempo–2, Tiempo Light Italic + Calendar, Ext_char, Formset, F–

CN #307D
Calamus Demo
Demo of Calamus desktop publishing package. Monochrome, requires 1 MB.

CN #456D
Pagestream Demo V1.8
Demo program of SoftLogik's desktop publishing program.

CN #461
Calamus Outline Art Demo
Demo of Calamus graphics program for use in desktop publishing applications. 1 Mb,

CN #591D
Calamus SL Demo
Complete working version of new Calamus shell (save disabled). Monochrome only.

List of Advertisers

Classified Ads

MIG 29M SUPER FULCRUM! In your ST Format cover disk #28, Domark presented a demo of their new fighter simulation. Instructions were vague and the demo does MUCH more than STF stated. If you would like expanded instructions with MANY hidden functions, send $4 (or $5 to add cost of a disk with free software) to Randy Shiffrar, PO Box 2480, Plant City, FL 33564-2480.

FOR SALE: SCANNER. Navarone full page 300 dpi sheetfed scanner. Saves in ST and IBM formats. Excellent condition, $275. I-B 5 1/4 IBM-ST drive for use with any IBM emulator, $60. Call Rick at 616-279-6378.

FOR SALE: SUPERCHARGER 1MB complete with PS, Manual, software, DOS. Like new in box. $75. D.F Koziol, 1005 Ditchley Road, Virginia Beach, VA 23451. Phone 804-425- 8843.

Send your classified ads to CN Classified, 122 N. Johnson Rd, Sterling, VA 22170. Cost is $0.03/character. Ads which arrive by the 15th of March will appear in the April issue.

Put CN in Your Local Library!

Want to introduce more people to Atari? Why not see that CN is in your local public or school library? For a limited time, CN will pay for more than half the cost of a library subscription. Any public library, or person, if they wish to make a gift of CN to their local library, may receive CN for a whole year for only $12.

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Foreign subscriptions are $35/year ($63/2 years) payable in US $ drawn on a US bank. For foreign subscriptions MC/VISA is the easiest way to go. See page 2 for Air Mail rates. [Apr92]

CURRENT NOTES SALE!

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Barbarian II	34	Lords of Chaos	35	Spot	31	Their Finest Hour	45
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Curse Azure Bonds	45	Pepe's Garden	36				
Defender II	29						
Deuteros	43						
Disciples of Steel	35						
Double Dragon III	36						
Dragonflight	39						
Dragons Lair III	39						
Drakkhen	39						
Dungeon Master	25						
Eco Phantoms	35						
Elvira	44						
F-15 Strike Eagle II	45						
F-19 Stealth Fighter	43						
Falcon	38						
Fighter Bomber	38						
Fighter Command	41						
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Frenetic	25	Powermonger	44	DC Utilities 2.0	25	Pagestream 2.10	189
Gauntlet 3	39	Predator II	37	Diamond Back II	37	Phasar 4.0	59
Gods!	34	Quest and Glory	43	Hard Disk Sentry	33	Scan Lite	17
Hard Drivin' II	37	Railroad Tycoon	46	Hotwire Plus	45	Stealth	31
Hero Quest	37	Realms	47	Image Cat 2.0	26	**Tax Wizard**	**42**
Hillsfar	34	Robin Hood	$38	Lattice C Ver. 5	209	That's Write	142
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Killing Game Show	36	Shadow Sorcerer	38	Lookit and Popit	26	Word Perfect	169
Knightmare	42	Shadow of Beast II	38	MOS Disk Utilities	38	Word Writer ST	54

Productivity

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Cal Outline Art	171	MVG 2.0	39
Card File 3	27	MVG Modules # 1/2	22

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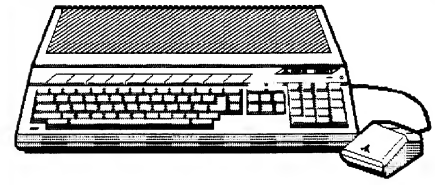
Atari Computers!



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Atari STE 2MB	$499
Atari STE 4MB	$599
Atari Mega STE's	$689

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Atari SC1435 (Color)	$359
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Floppy Drives

Atari SF314 (DS/DD)	$169
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TOS 2.06 Only $134

Disks, etc.

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If you own a 520 or 1040ST consider trading up to an STE! They're really fast and fun. Call us or better yet call me, Doug, and let me tempt ya!

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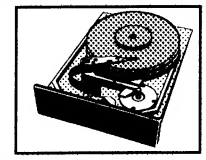

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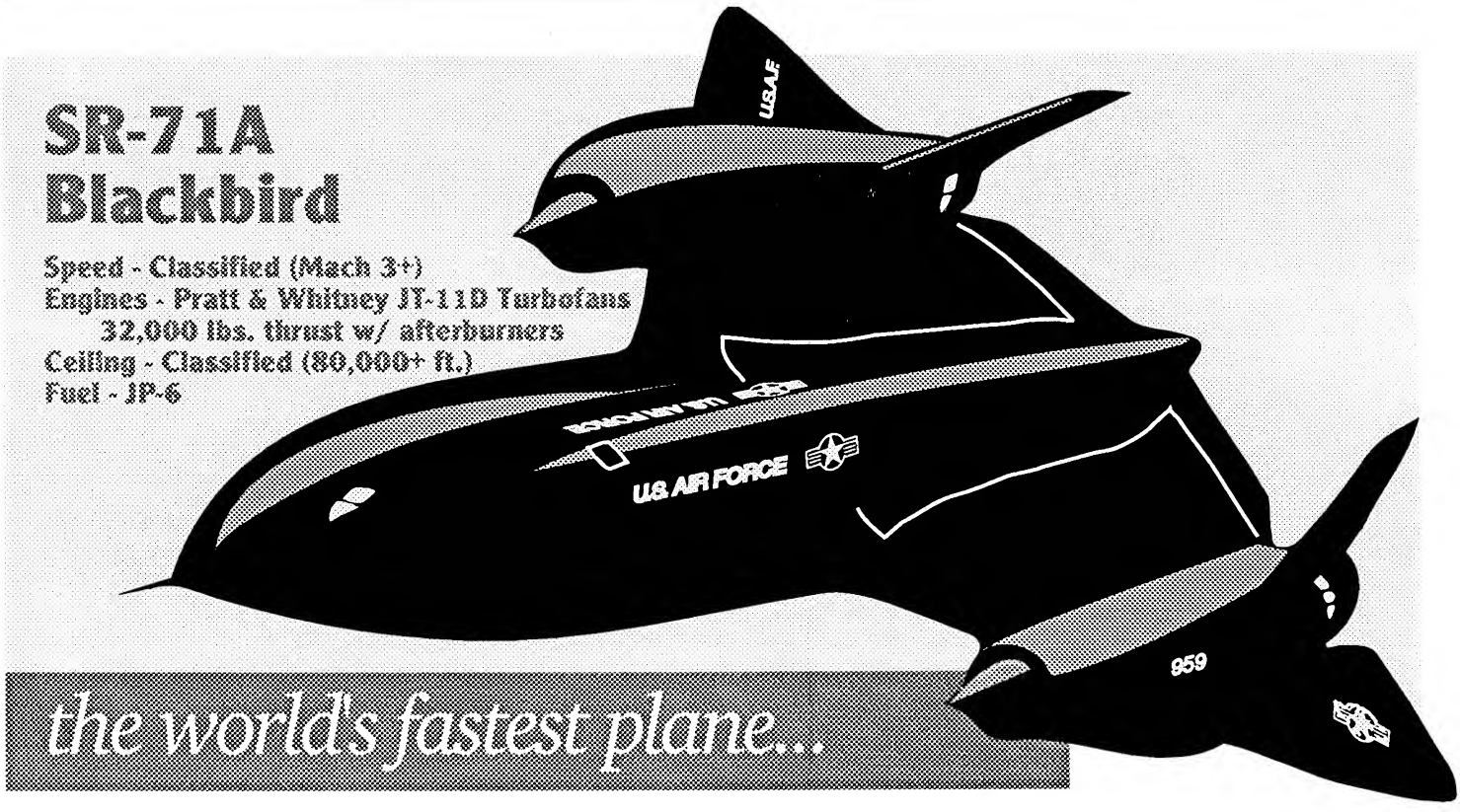

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